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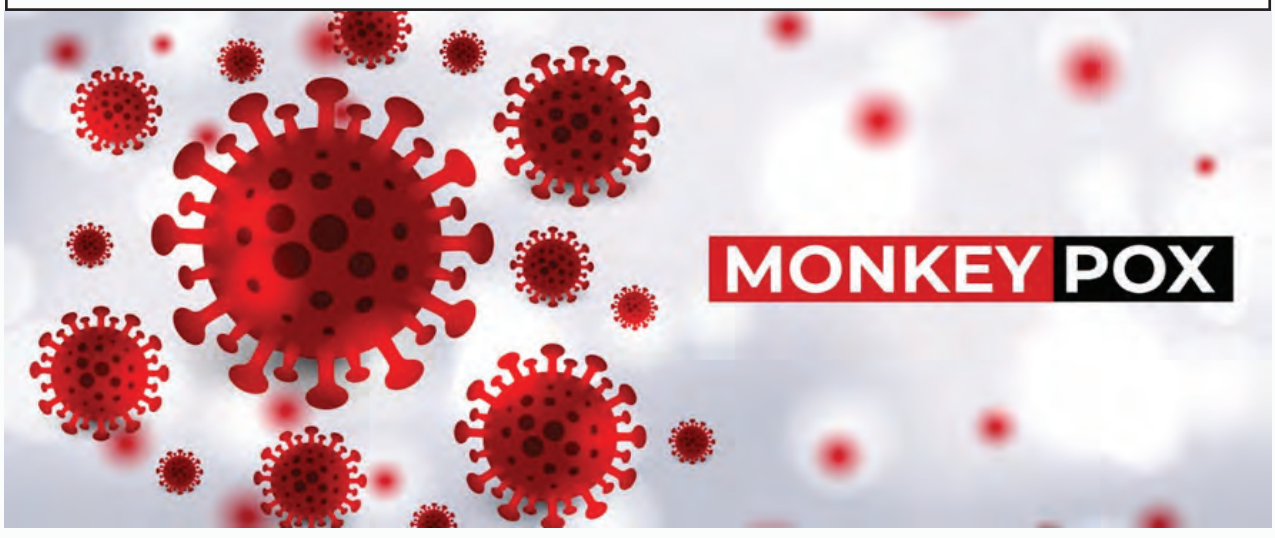


The International Tobacco Control Conference on

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Table of Contents

Original Articles

Immunohistochemical Expression of Calretinin in Invasive Breast Carcinoma and its Correlation with Clinicopathological Parameters **07**
Gargi Madhukar Patil, Siddhi Gaurish Sinai Khandeparkar, Shital Subhash Gosavi, Chaitnya D. Khillare, Bageshri P. Gogate, Avinash R. Joshi, Ketki Ghanekar, Asmita S. Pawar

Immunohistochemical Study of Cyclin D1 and HER2/neu in Pre–neoplastic and Neoplastic Epithelial Lesions of Cervix **14**
Neha D. Newadkar, Siddhi Gaurish Sinai Khandeparkar, Bageshri P. Gogate, Aishawarya Gotekar, Priyanka Bhave, Rashmi Shinde, Aanchal Goyal

Survival Outcomes and Predictive Factors to Evaluate the Efficacy of Neoadjuvant Chemoradiation in Carcinoma Esophagus: An Institutional Experience from India **24**
Bhargav Shreeram Gundapuneedi, Vedamanasa Ikkurthi, Jagadesan Pandjatcharam, Y. Sree Sowmya, Raghuveer Reddy Janamolla

Open Nephron–Sparing Surgery for Renal Tumors is an Effective Surgical Option for Low HealthResource Settings in the Era of Laparoscopic Surgery **36**
Adil Ibrahim, Mohamed Mustafa, Imad Fadl Elmula

Brain metastasis: Types, methods of diagnosis and treatment in Nineveh province. **43**
Bassam Jasim1, Alya A Al Zobair, Ahmed Ali Albakr, Barrak F. Al Obeidy

Review Article

Relationship Between Social Support, Coping Strategies, Spirituality and Psychological Status among Breast Cancer Survivors **49**
Maryam Hasan, Leena Khonji, Gayathripriya Narayanan

Postoperative Radiotherapy in Resected Non–Small Cell Lung Cancer: Current Status and Enduring Challenges in 2024 ..... **54**
Fadila Kouhen, Hanaa El Gouach, Nadia Errafiy

Case Report

Synchronous Cutaneous and Brain Metastasis in a Treated Case of Squamous Carcinoma of Left Lower Alveolus: A rare Case report **61**
Prarabdh Singh, Sambit S Nanda, Ashutosh Mukherji

Lived Experiences of Pregnancy, Childbirth and Breastfeeding in Iranian Breast Cancer Survivors: a Qualitative Case Study **65**
Mohadeseh Pourzamani , Hadis Ashrafizadeh, Maryam Kiarsi, Marzieh Beigom Bigdeli Shamloo

Pembrolizumab in the Management of Chemorefractory Gestational Choriocarcinoma: Report of Two Cases. **74**
Fatma Al Zaabi, Ajit Venniyoor, Suad Al Kharusi

Extramedullary Hairy Cell Leukemia in Parotid Gland, Case Report and Review of the literature **79**
Mohammed Shafi Abdul Salam, Shaima Al Shammari, Dina Ismail Abd El Razik, Moustafa El–Kabany, Ramesh Pandita, Ahmad Alhuraiji

Conference Highlights/Scientific Contributions

- **News Notes** **83**
- **Advertisements** **85**
- **Scientific Activities** **87**

Case Study

Lived Experiences of Pregnancy, Childbirth and Breastfeeding in Iranian Breast Cancer Survivors: a Qualitative Case Study

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Abstract

Background: Breast cancer is the most common among women, which affects their fertility, so that patients feel a loss of femininity and identity after being infected. This research was conducted with the aim of investigating the experiences of pregnancy, childbirth and breastfeeding after recovery from breast cancer.

Methods: In this qualitative case report study, 4 participants based on the objective and available were selected. After conducting an interview and asking questions about their experiences in pregnancy after recovery from the disease, as well as the experiences of breastfeeding and caring for the child, their statements were analyzed.

Results: The data were divided into the period of pregnancy–delivery and breastfeeding. The main dimensions extracted during pregnancy and childbirth include: physical conflict,Stop tracking cancer, Support failure, physical conflict, Stop tracking cancer. The main dimensions extracted breastfeeding include: Support failure, Inability to care for a child, Changes in the lives of couples, Get support.

Conclusions: Based on the results of this study, breast cancer survivors have problems in taking care of their children if they have children, and they need all–round support from the family and the government.

Keywords: Breast cancer, Pregnancy, Childbirth, Survivors, Breastfeeding

Introduction

Breast cancer is the second most common cancer in the world and The second leading cause of death is cancer [(1)]. The prevalence of breast cancer in Iran is 29.88 per 100,000 women per year[(2)], and it is the second cause of death related to cancer in Iran [(3)]. The incidence of cancer in Iran is increasing, and the highest age group is 45–65 years and 80–85 years old [(3)].

Breast cancer treatments include surgery, chemotherapy, and radiotherapy, which are selected based on the severity and stage of diagnosis of one or more methods [(4)]. Breast cancer has caused numerous physical, mental, psychological, work, and economic consequences for patients and their families [(5)], and most of its effects are reported to be physical problems caused by mastectomy and chemotherapy [(6)]. Mastectomy causes disruption of the symmetry of the breasts, a large scar, and a change in the sensation of the nipple. Subsequently, it causes negative effects on the psychosocial status of the patient [(1)]. Due to the role of the breast in the formation of the mental image, the role of a mother and a wife in women, getting breast cancer causes the fear of disrupting the physical appearance, the fear of recurrence and metastasis, and finally, the fear of death [(7)]. Breast cancer is a threat to femininity because it distorts ideals of beauty and disrupts women's domestic roles as homemakers and mothers, which stigmatizes them, and they have to make many efforts for their physical and mental recovery [(8)].

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Women with breast cancer often experience changes in their maternal role due to the disease or as a result of reduced ability to care for a child. Despite this, many try to play their motherly role as before the disease. The role of the mother has faded due to the disease, and the mother's ability to take care of the child has decreased. Also, the simultaneity of motherhood and breast cancer increases the problems of illness and tensions caused by responsibility, and they are always worried about it and feel fear and anger [9]. In addition to these patients, at the time of breast cancer, they suffer from a disturbance in marital relations, and it has the greatest impact on sexual relations until breast cancer is referred to as relational cancer [10], which in some cases leads to the experience of abuse and violence in the patient by the spouse. In confirmation of this point, some patients state that they have been hurt more by their spouses than by the disease [11].

Also, breast cancer is one of the malignancies in women of reproductive age, and it is more aggressive and has a poorer prognosis in younger women [12]. Also, the toxic effect of chemotherapy, as an adjunctive treatment and part of the treatment plan, often disrupts fertility temporarily or permanently [13] or causes premature ovarian failure due to extensive destruction of the ovarian reserve [14]. Usually, treated women are advised to postpone pregnancy for at least 2 years after diagnosis, considering that most relapses occur in this time frame [15]. The fertility of young women is a critical issue in clinical settings. Young women diagnosed with breast cancer face uncertainty about their ability to get pregnant after cancer treatment [16].

For these young patients, impaired fertility may be a very important issue. The evidence shows that young patients with BC experience more psychological distress and anxiety due to the concern about the possible loss of fertility in the future following anti–cancer treatments [17].

Improvements in screening methods and advances in treatment have led to the diagnosis and survival of an increasing number of people of reproductive age who have not yet formed a family or completed their family. For some young sufferers, the threat to their childbearing plans has major psychosocial and developmental consequences [18].

Therefore, with improved treatments and reduced mortality, the ability to maintain reproductive potential is becoming a major factor that women may experience during survival and a determinant of quality of life in an increasing number of sufferers [16].

Many women are interested in future fertility at 4 years after breast cancer diagnosis, suggesting that longitudinal discussions of fertility are needed. Although a minority of those interested in having children conceive within the first 5 years, most of those who do conceive do so and have live births [19]. Therefore, the desire to get pregnant in these patients should be taken into consideration in formulating their care plan [20].

Although pregnancy after breast cancer treatment is considered possible in patients with a low risk of recurrence, the possibility of cesarean section, premature delivery, and low birth weight is higher in these patients than in the general population [20]. In some articles, mother's feeding is mentioned as a safe method for mother and child for infant feeding [21].

The review of the literature showed that no study has been conducted on the experience of wife, breastfeeding, or motherhood of Iranian breast cancer patients after treatment, and it has rarely been studied in other cultures. Also, it is not possible to identify the factors related to premature birth in these patients except by conducting qualitative research, so this research was conducted to explain the lived experiences of wives, breastfeeding, and motherhood in Iranian breast cancer survivors.

Methodology

In this qualitative case study, after obtaining permission from the Dezful University of Medical Sciences student research committee and informed constantfrom participants, 5 participants were selected based on the inclusion criteria, targeted and available, which included 3 cancer survivors, and 1 wife in Ganjavian hospital from Agu to Nov 2023. The inclusion criteria of those who have recovered include familiarity with the Persian language, experience of pregnancy and childbirth after recovery from breast cancer, and patient's history of mastectomy. Entry criteria for therapists: therapy experience for at least one cancer survivor who has given birth. In this research, 5 interviews were conducted with 4 participants. The duration of the interview was based on the tolerance and interest of each participant, and the average duration of the interview was 41 minutes. The interview was conducted in person, and the time of the interview was coordinated with the participant. The data collection method was an unstructured interview. The participants were asked to explain their life experiences, including their perceptions, experiences, feelings, and problems during pregnancy, childbirth, and breastfeeding. Then, probing questions such as "How did you feel during your pregnancy?" Lincoln and Goba criteria were used to ensure the accuracy and robustness of the data [22].

To increase the credibility of the data from long–term involvement with the subject, data validation by the review participants by group people and integration (using several methods to generate data, including interview notes in the field) were used to increase the verifiability of the rich and deep description of the data and the audit chain. For this

purpose, the entire research process was fully recorded. For transferability, it was tried to provide a basis for judging and evaluating others about the transferability of the findings with detailed descriptions of the research context, transcripts, and processes observed in the research. The participants' returns were used for the validity and credibility of the research findings. The topics obtained were returned to the participants, and they were asked to specify whether these topics were an expression of their experiences of pregnancy, childbirth, and breastfeeding or not. All subjects were approved. In addition, data coding and analysis were done independently by the researchers and jointly by them to ensure agreement on the topics.

Findings

In this study4 participants were selected, which included 3 patients, and 1 patient's wife. Most participants had bachelor's degrees, and all recovered patients were over 5 years old. Most of them had one child(Table 1).

In the period of pregnancy and childbirth, there were 5 main components of physical conflict: cessation of cancer follow–up, lack of support, adherence to spirituality, and insistence on cesarean delivery(Table 2).

Pregnancy and childbirth

Physical conflict

In some participants, it was in the form of digestive problems such as indigestion and food intolerance.

Participant number 1: "My only physical problem was that I could not tolerate the amount of food I used to eat".

Pregnancy threatening abortion

Some of the participants had symptoms such as spotting and uterine pains, threatening them with abortion.

Participant number 2: "I had spotting in the 10th week of pregnancy, and I was sad about it."

Stop tracking cancer

All the participants postponed the serial imaging of the breast until after delivery because there was no possibility of legal abortion for them in case of metastasis.

Participant number 2: "I did not do any sonography or mammography during the 7th month of pregnancy because even if I had metastasized, I did not want to abort it."

Number	Age	Education	Job	duration of infection	duration of marriage	number of children	Method of pregnancy	Participant type	Type of mastectomy
1	39	Masters	housewife	6	12	2	Natural	Patient	parochial
2	33	Masters	Employee	5	7	1	Natural	Patient	Total
3	36	Masters	Employee	10	8	2	Natural	Patient	Total
4	44	Masters	free	————	12	1	————	Spouse	————

Table 1: Demographic characteristics and background information

	Main component	Sub component
Pregnancy and childbirth	Physical conflict	Digestive problems – threat of miscarriage
	Stop tracking cancer	Failure to perform serial imaging – no possibility of legal abortion in case of metastasis
	Support failure	Inadequate occupational support – lack of support from therapists
	physical conflict	Trusting in God – entrusting the result of work to God
	Stop tracking cancer	Absence of cesarean section indication in a patient with breast cancer – patient's avoidance of natural childbirth
Breastfeeding	Support failure	Getting mastitis – early weaning
	Inability to care for a child	Inability to take care of the child with the affected hand – inability to hug the child
	Changes in the lives of couples	Restoring the patient's identity – increasing life expectancy –
	Get support	Family support – support from therapists

Table 2: The main and secondary components of the lived experiences of pregnancy, childbirth, and breastfeeding in breast cancer survivors

Support failure

It was evident in all the participants that if the mother was working, they were not given proper job support, and they were treated like non–pregnant and non–cancer women. All of them also complained about the lack of support from therapists.

Participant number 2: "When I told my doctor that I wanted to get pregnant, he said that it was not possible at all; he did not know about this and said why do you want to have a baby!!!!".

Adherence to spirituality

In all the participants, adherence to spirituality was done by trusting in God and entrusting the results of the work to God.

Participant number 4: "My wife really wanted to have a child, and she gave herself to God."

Insistence on cesarean delivery

All participants insisted on cesarean delivery, while breast cancer was not an indication for cesarean section in the Medical Commission, and the patients avoided natural delivery. Also, in some cases, when the fetus had complications such as decreased heart rate, an emergency caesarean section was performed for the patient.

Participant number 2: "I wanted to have a caesarean section from the beginning of my pregnancy, but my doctor did not accept, and they said that previous breast cancer is not a reason for a caesarean section".

Breastfeeding period

The challenge of breastfeeding

During the breastfeeding period, all the participants started breastfeeding with a healthy breast; some of them had mastitis, and if there was no need to start chemotherapy again, they could feed the child from the healthy breast until the end of two years.

Participant number 1: "I breastfed my baby for two years with my healthy breast".

Participant number 2: "Because I have to take Tamoxifen as soon as possible after giving birth, I breastfed the infant at the end of two months."

Inability to care for a child

All participants had difficulty in caring for their child due to the inability to use the hand on the mastectomy side to perform tasks such as holding the child and washing the child.

Participant number 4: " Because my wife should not lift heavy equipment to hug our children and wash them ".

Participant number 2: "I try different ways to wash and put the baby to sleep, which requires less hugging."

Changes in the lives of couples

All the participants stated that there was a change in their married life, and finally, it led to the revival of their identity and increased the life expectancy in the couple's life.

Participant number 3: "After the birth of the twins, I felt very good about myself, especially since my previous husband had divorced me because of cancer; I felt like a woman."

Get support

All participants in the breastfeeding period have benefited from family support and support from therapists, which has facilitated child care.

Participant number 4: " All members of my family and my wife tried to help us ".

Discussion

The current study was conducted to explain breastfeeding and motherhood experiences in women after breast cancer. Leung et al. (2020) and Durrani et al. (2018) identified challenges and complex decisions, including birth plans, breastfeeding, genetic counseling, and fertility options for women with Gestational Breast Cancer (GBC) who experience aspects of pregnancy and motherhood regret [23, 24]. The results of this research were in 2 themes "pregnancy and childbirth period" including 5 main components of physical and psychological conflict, stopping the follow–up of cancer and indifference to self–treatment, lack of support, clinging to spirituality, and insisting on cesarean delivery, and "breastfeeding period" including 4 main components of the challenge of breastfeeding, inability to take care of the child, transformation in the life of couples, receiving support.

According to the lived experiences of women after getting breast cancer, the first subcategory of the "pregnancy and childbirth" category is physical and psychological conflict. Pregnancy after breast cancer presents unique and complex physical, psychological, and relational challenges with potential long–term consequences for patients and their families. Some short–term physical changes can include alopecia, skin changes, nausea, fatigue, allergic reactions, weight changes, difficulty lifting or carrying the baby, and recovery [25, 26]. Women often have to adapt to the inability to breastfeed and partial or total mastectomy [25, 27, 28]. Women who have had an oncological diagnosis in the past

often face uncertainty about the outcome of the disease or discontinuation of hormone therapy, which creates ambivalent feelings about pregnancy [25, 29]. Indeed, the most common experiences include returning to normal and recovering from illness, but also concern for the health of children, fear of relapse, and neglect of their own children's growth [26, 30, 31]. Some studies have shown that negative emotional states caused by this disease, such as anxiety, stress, anger, and fatigue, increase during pregnancy [32, 33]. In contrast, Mascheroni et al.'s (2019) study found that maternal mood in the last trimester of pregnancy did not differ between cancer survivors and control women. However, the same study found that these women had significantly higher levels of post–traumatic stress disorder (PTSD) symptoms and lower levels of quality of life [34].

One of the subcategories of "pregnancy and childbirth" has been "stopping the follow–up of cancer or not caring about continuing your treatment".

Rees et al. (2016) explain that in addition to feeling guilty and unable to breastfeed, mothers could not "allow" themselves to get sick because they had to care for their children. These women looked at their children's health to make sure that their need for the sick role during pregnancy and shortly after did not harm their children [35]. As far as the knowledge of researchers allows, the issue of why breast cancer survivors do not follow up on their treatment process after pregnancy has not been discussed in studies. It should be emphasized that post–treatment follow–up is an important part of cancer care. Because the possibility of breast cancer returning (recurrence) within 5 years is very high, and during this period, careful follow–up is required. Women diagnosed with breast cancer are at increased risk for developing cancer in the opposite breast as well as colon, ovarian, and uterine cancer[36]. Therefore, a post–operative monitoring/follow–up program for breast cancer patients to monitor the recurrence of breast cancer and emphasize the importance of regular follow–up in these patients is mandatory.

Another sub–category of "pregnancy and childbirth" has been clinging to spirituality. Spirituality is a foundation that supports the complex illness process of breast cancer, which creates changes in the meanings and reevaluation of patients' experiences and highlights the need to integrate values, the will to live, and the purpose of life [37]. There is sufficient evidence to support the notion that spiritual factors can serve as a resource for individuals facing cancer diagnosis and treatment decisions.

Another subclass of "pregnancy and childbirth" has been the insistence on cesarean section. Childbirth is a multidimensional life event, and women report both negative and positive aspects of childbirth simultaneously [38]. Cancer diagnosis is considered a traumatic event and a potential risk factor for developing complex postpartum psychological problems [39]. The effects of anxiety and stressful life events on the health of women, especially breast cancer survivors, during pregnancy and their birth outcomes have been studied, which can be associated with many adverse outcomes such as preeclampsia, prolonged labor, premature birth, and low birth weight. [40]. In addition, a negative birth experience can negatively affect the mother's mood after delivery, the mother–child bond, and breastfeeding [41, 42]. Studies have shown a decrease in the rate of spontaneous vaginal delivery and an increase in the rate of cesarean delivery [43–45]. The caesarean section rate in pregnant cancer patients has been observed to be more than 30%, which is higher than the reported global rate of 21%. This higher rate is partially explained by the high proportion of preterm births and the tendency for planned and controlled births in cancer patients who are exposed to mental stress and physical fatigue [46]. However, medical sources emphasize that if there is no contraindication in terms of obstetrics, natural childbirth with fewer maternal and neonatal complications is desired [47]. In this study, pregnant mothers preferred cesarean section for several reasons.

One of the subcategories of the "breastfeeding period" has been the inability to care for a child. As mothers, women with breast cancer experience a high level of confusion and stress in dealing with the disease during the diagnosis, treatment, and progression of the disease. These negative emotions can affect maternal duties and caring for children. In other words, breast cancer threatens the strength and stability of the mother's role and weakens the mother's ability to take care of her children [48]. In general, mothers with breast cancer, on the one hand, try to balance their personal needs and family needs [49]. On the other hand, they struggle with maintaining their motherhood identity. This shows that trying to get treatment affects the role of the mother with breast cancer in her care and her relationship with her children.

Another subcategory of "breastfeeding period" was "challenges of breastfeeding, especially breastfeeding". An interesting aspect that emerged from the interviews of women with breast cancer in the past is breastfeeding.

The inability to breastfeed for women with a history of breast cancer in the past and the fear of not being able to breastfeed in women with GBC can make them feel inadequate in their maternal role. Because they are worried that this will prevent them from establishing a positive relationship with their child [50, 51]. The results of a study show that after breast cancer treatment, women may have problems with breastfeeding, such as the inability to breastfeed in the affected breast [52]. Women

experience significant distress when decisions are made during diagnosis and treatment about whether to recommend breastfeeding or not [53]. Women mourned the loss of the right to breastfeed [54, 55].

Another sub–category of the "breastfeeding period" has been the transformation in the lives of couples. Our results also provide insight into the meaning of childbirth for women experiencing cancer and pregnancy. Consistent with previous studies, becoming a parent after a cancer diagnosis appears to be associated with feelings of rebirth, hope, and a desire to return to a positive, "normal" life [25]. Jeonghee Ahn et al. (2023) in a study stated that having a child is very important after overcoming the challenging journey of breast cancer. They saw childbirth as powerful and tangible evidence of overcoming this disease, a symbol of the revival of their bodies that allows them to leave behind their past illness and move beyond a life dominated by treatment. The arrival of new life was seen as a miraculous event that evoked deep gratitude and provided an opportunity to regain faith and trust in one's health. In addition, participants felt that any child born healthy in the midst of such adversity would be more lovingly embraced and cherished [56]. Some participants saw the experience of having a child as closing the door on cancer and having a future to look forward to, a finding supported by other studies [57].

One of the subcategories of "pregnancy and childbirth period" and "breastfeeding period" has been the importance of social support and emphasis on insufficient support. Several studies indicate that isolation, distance, and disconnection from family or friends contribute to the psychological stress of women after breast cancer during pregnancy and after [58–60]. Women experienced feelings of uncertainty with limited family support or communication [60]. A comparison between women with no history of oncology and women previously diagnosed with breast cancer shows that these women receive more support from their partners and see them as figures who can play a protective role towards them. Support provided by the partner in evaluating fertility preservation options at the time of diagnosis and choice of method and timing of conception after treatment is also relevant [26]. These results provide the first evidence of the importance of social support for the mother's quality of life during pregnancy and in the first months after delivery. The family plays a key role in creating a supportive environment for the patient, and research shows the importance of the family for self–management of chronic conditions such as cancer [61].

Conclusion

The findings of the present study provide relevant insight into the experience of pregnancy, childbirth, and breastfeeding in women with past breast cancer. These psychological resources of women, the meaning of motherhood, and the support of their life partners should be considered in clinical practice in the field of perinatal psychology and psycho–oncology. To support women with GBC or previously diagnosed BC during the critical period of pregnancy, healthcare practitioners must be aware of the unique experience and challenges associated with motherhood in these populations to avoid negative consequences on the mother–infant relationship. At the same time, appropriate referral to trained counselors may be important for the subset of women who experience severe fear and anxiety. Support services and networks, including those focused on breast cancer as well as more general cancer organizations, could benefit from raising awareness of the issues and concerns of young women with breast cancer regarding reproductive and breastfeeding issues.

Additionally, breast cancer and breastfeeding websites may contain information or links to information about these reproductive issues. In addition, young women with breast cancer who do not decide to breastfeed also need special support that should be focused on them. Receiving adequate information about fertility and the possibility of a safe pregnancy after breast cancer while feeling supported by a multidisciplinary team, including a psychologist, may lead to better adaptation to the disease and increased psychological well–being and quality of life in the long term. Finally, involving patients' partners is important to promote communication and a common path between couples.

Limitation

One of the limitations of this research was the very small number of survivors who have started having children, which made it difficult for the researcher to choose participants. Also, the opposition of many doctors, especially obstetricians and gynecologists, to the phenomenon of pregnancy in survivors caused them not to have much experience in the care and delivery of these patients, and most of the supporters of pregnancy in cancer survivors were some oncologists, which added to the difficulty of conducting research.

Declarations

Ethics approval and consent to participate

All ethical principles in human research were observed, including informed consent, permission to record interviews, data confidentiality, and the right to withdraw from the study. This study was approved by the Dezful University of Medical Sciences research ethics committee with the code IR.DUMS.REC.1402.027.

Consent for publication

All authors declare their consent to publish the article.

Availability of data and materials

Not applicable

Competing interests

The author(s) declare no potential conflict of interest with respect to research, authorship and or publication of this article

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