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Original Article

Caring Connections: Unveiling Supportive Needs for Enhanced Quality of Life in Young Women with Breast Cancer

Parvaneh Aghajari[1], Mina Hosseinzadeh[2*], Farnaz Rahmani[3], Faranak Jabbarzadeh[4], Sheila Hurst[5]

[1]Department of Pediatric Nursing, School of Nursing and Midwifery, Maragheh University of Medical Sciences, Maragheh, Iran
[2]Department of Community Health Nursing, Nursing and Midwifery Faculty, Tabriz University of Medical Sciences, Tabriz, Iran
[3]Department of Psychiatric Nursing, Nursing and Midwifery Faculty, Tabriz University of Medical Sciences, Tabriz, Iran
[4]Department of Medical-Surgical Nursing, Nursing and Midwifery Faculty, Tabriz University of Medical Sciences, Tabriz, Iran
[5]Washington State University College of Nursing, Spokane, Washington, USA

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***Corresponding Author:**
Mina Hosseinzadeh,
Email: M.hosseinzadeh63@gmail.com

Abstract

Introduction: Providing supportive care to cancer patients can improve their quality of life (QOL). The present study aimed to determine the met and unmet supportive care needs of young women with breast cancer and their relation with their QOL.

Methods: In this cross-sectional correlational study, 275 women under 50 years old with breast cancer under chemotherapy who were selected by a convenience sampling method in 2020-2021 at Tabriz, Iran, participated. Data were collected by questionnaires and were analyzed using descriptive statistics and inferential statistics by SPSS software version 13.

Results: The mean (SD) score of supportive care needs was 87.25(23.27). The most common unmet needs among patients were psychological needs. The mean (SD) scores of QOL in the functional and symptom domains were 36.21(4.23) and 41.91(6.57), respectively. Total supportive care needs had a significant and negative relationship with the functional areas of QOL in both the EORTC QLQ-C30.V.3 (r=0.15, P=0.007) and EORTC QLQ-BR23 (r=-0.46, $P<0.001$) and a significant positive relationship with the symptom domain in both the EORTC QLQ-C30.V.3 (r=0.32, $P<0.001$) and EORTC QLQ-BR23 (r=0.11, P=0.03).

Conclusion: Patients with breast cancer require a variety of supportive care during treatment. Supportive care programs, particularly during chemotherapy or hormone therapy, are essential for reducing patients' unmet needs and improving their QOL.

Introduction

Breast cancer is the most prevalent cancer in women globally and is responsible for 15.5% of all cancer-related deaths.[1] According to the World Health Organization, it was the most frequently detected cancer in Iranian women, at a rate of 35.8 per 100 000 people in 2020.[2] Although its incidence has increased, the related mortality rate has decreased to 9.9 per 100 000 individuals over the past five years,[3] and the estimated survival rate has increased to 72%.[4] Early diagnosis and effective treatment have a key role in extending the length and quality of life (QOL).[5] The QOL associated with treatment and supportive care, however, has received less attention. Younger patients are more likely to suffer the negative effects of breast cancer and its treatment.[6] Women undergoing invasive breast cancer treatments are more likely to experience issues related to body image, sexual health, pregnancy, and breastfeeding.[7,8] Chemotherapy and hormone therapy, which are common treatment strategies for breast cancer, also cause premature menopause and infertility.[9,10] Moreover, after receiving a breast cancer diagnosis, women experience life direction changes and high levels of mental distress, making them psychologically more vulnerable.[7,11,12] These issues contribute to complicated life situations related to their family, community, and professional life and diminish their QOL.[13]

It is important to provide enough supportive care to patients during all phases of treatment and recovery to enhance their QOL. A patient-centered approach to comprehensive care is critical to improving patient satisfaction and quality of care and empowering patients.[14-16] Many women with breast cancer, especially those from Asian countries, do not receive adequate support to cope with health challenges.[17] Research studies performed on young women with breast cancer revealed that more than 50% of supportive care needs were unmet by healthcare providers (HCPs).[14,18,19] Several unmet needs were identified, including nutritional information, exercise tips, information on infertility, and mental health information.[19] Several studies have shown that the most important unmet needs among breast cancer survivors are the fear of disease recurrence,[20] ineffective relationships with HCPs,[14,19] and a lack of emotional support.[21] The identification of met or unmet support needs can facilitate improved care for patients in distress and with poor QOL.[22]

Various constructs can be used to assess mental adaptation to cancer, such as QOL, satisfaction with care, and need assessment.[23] Using these measures, patients' specific needs and severity can be identified so that help can be tailored to their current situations.[22]

Based on an epidemiologic study conducted in East Azerbaijan Province, the incidence increased from 21 to 11, and mortality decreased from 5 to 11.[3] The increasing incidence and longer survival rates of breast cancer patients highlight the importance and necessity of increased supportive care services.[3,4] Although many studies have examined QOL and supportive care needs in cancer patients, few have examined the relationship between these needs and QOL.[24-26] It is necessary to conduct further research to determine the effects of care and support needs on QOL. Women are the backbone of Iranian society and families.[27] Therefore, identifying met and unmet care support needs in young women with breast cancer and how they affect their QOL helps prioritize care support needs. Furthermore, this encourages the development of appropriate programs to meet these needs. Additionally, these measures will enhance the quality of care and lead to a better QOL. This study aimed to determine the association between supportive care needs and QOL in young women with breast cancer who were undergoing chemotherapy.

Materials and Methods

We used a correlational study design to investigate supportive care needs and QOL in young women with breast cancer. The target population for the current study was women with breast cancer who were referred to the Imam Reza Teaching Hospital affiliated with the Tabriz University of Medical Sciences for chemotherapy. The convenience sampling method was used according to the eligibility criteria. Inclusion criteria included Iranian women under the age of 50, the ability to communicate, willingness to participate in the study,–a diagnosis of breast cancer by an oncologist, and who received a referral for chemotherapy to the oncology clinics of Imam Reza Medical Educational Center, Valiasr hospital and private offices of Oncologists from August 2020 to November 2021 in Tabriz, Iran. Patients with a history of other chronic and debilitating diseases, such as diabetes, kidney problems, and any organ defects or cognitive disorders, were excluded from the study.

The sample size was determined based on the Ruth study and the correlation between the QOL score and the area of sexual needs ($\alpha = 0.05$, $\beta = 0.20$, $r = 0.21$); 234 people were obtained,[26] but given the availability of subjects and the possible nonresponse rate of 20%, the needed sample size was ultimately raised to 280. Of that sample, 5 patients refused to continue the interview while completing the questionnaire and were excluded from the study. The final sample of 275 women participated in the study.

A three-part questionnaire was completed through face-to-face interviews with participants, including a sociodemographic checklist, 34-item short-form Supportive Care Need Survey (SCNS-SF34), and European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30.V.3, the EORTC QLQ-BR23). The sociodemographic checklist included 13 items regarding age, gender, marital status, level of education, number of children, income status, employment status, spouse employment status, employment history, living conditions (alone, with spouse or children), type of received treatment, and the family caregiver.

The supportive care needs survey (SF-34) was developed by Boyes et al. in 2009. It is a 34-item self-report measure that uses a five-point Likert-type scale, with response options ranging from 0 (no need) to 4 (high need always). This questionnaire included 5 domains of daily/physical life (5 items), psychological needs (10 items), patient care and support needs (5 items), sexual needs (3 items), and information and health system needs (11 items). The range of total scores is 34-170, and higher scores indicate a greater need for help. The face and content validity of this tool was investigated in a recent study in Iran, and Cronbach's alpha coefficient was reported as 0.9.[17]

To assess QOL, the EORTC QLQ-C30.V.3 (30 questions) and the Iranian version of the EORTC QLQ-BR23 (23 questions) instrument were used. The EORTC QLQ-C30.V.3 scale was developed by the European Organization for Research and Treatment of Cancer and assesses five functional domains (physical, role-playing, emotional, cognitive, and social), nine areas of symptoms (fatigue, nausea, vomiting, pain, shortness of breath, loss of sleep, loss of appetite, constipation, diarrhea, and financial problems), and total QOL. The scoring for functional and symptom domains and the total QOL is based on a four-point Likert scale and a seven-point Likert scale, respectively. The EORTC QLQ-BR23 is a dedicated questionnaire for assessing the QOL in breast cancer among Iranian patients and examines 4 functional domains (sex, sexual pleasure, body image, and future prospects) and 4 symptom areas (hair loss, side effects of treatment, arm symptoms, and breast symptoms). The developers recommended using the questionnaire along with the EORTC QLQ-C30. V.3 questionnaire.[28]

Data were analyzed using the Statistical Program for the

Social Sciences (SPSS) version 13. Descriptive statistics were computed for all variables, including frequencies, means, and standard deviations (SD). The skewness and kurtosis test was used to examine the data distribution. Relationships between supportive care needs and QOL and other sociodemographic factors variables were assessed using the Pearson correlation coefficient and independent t tests. Statistical significance for all tests was set at $P < 0.05$.

Results

Data from 275 women under 50 years old with breast cancer who were undergoing chemotherapy were entered into the analysis process. The mean (SD) age of the participants was 43.62 (8.12). Approximately 30% had a university education, 78.9% were housewives, 81.8% were city residents and 41.8% had a high desire to receive information regarding breast cancer care. Among the investigated symptoms, hair loss was the highest reported symptom (78.9%). Other personal and social characteristics of the participants are presented in Table 1.

The mean (SD) score of support needs was 87.25 (23.27) in the range of 34-170 scores. The mean (SD) of each domain related to QOL and support needs is shown in Table 2. The highest unmet needs score for supportive care was in the psychological dimension (5/10). Of particular note, 49.8% of participants ranked their highest unmet need in helping to reduce anxiety. The frequency of the highest unmet need is shown in Table 3.

The mean (SD) scores of the functional and symptom dimensions of the QOL in the questionnaire of (QLQ-C30) were 36.21 (4.23) and 41.91 (5.67) and in the QLQ BR23 questionnaire were 40.66 (4.57) and 34.32 (5.99), respectively. The highest mean (SD) in the functional dimension of the QLQ-C30 questionnaire was related to cognitive performance 44 (5.06), and in the QLQ, the BR23 questionnaire was related to hope for the future 56.02 (4.53). In the domain of symptoms of the QLQ-C30 questionnaire, it was related to financial problems 51.67 (4.11), and in the QLQ questionnaire, BR23 was related to treatment side effects 44.73 (8.41) (Table 1). The Pearson correlation coefficient test showed a negative significant correlation between scores of the functional domain of QOL and supportive care needs and a positive significant correlation between scores of the symptom domain of QOL and supportive care needs (Table 4).

Discussion

The present study was conducted to determine supportive care needs and their relationship with the QOL of young women with breast cancer undergoing chemotherapy. Based on the results, the mean social support score was below average, and five out of the ten items of the psychological domain were unmet needs. This finding may be explained more by the fact that participants in the present study underwent active treatment

Table 1. Demographic characteristics of the participants (*n*= 275)

Characteristics	No. (%)
Marital status	
Single	27 (9.8)
Married	238 (86.5)
Divorced/widow	10 (3.6)
Education	
Illiterate	59 (21.5)
Under diploma	62 (22.5)
Diploma	72 (26.2)
University degree	82 (29.8)
Husband education	
Illiterate	42 (15.3)
Under diploma	41 (14.9)
Diploma	84 (35.5)
University degree	95 (33.8)
Employment	
Housewife	217 (78.9)
Employee	45 (16.4)
Freelance job	13 (4.7)
Income	
Expenditure less than earnings	167 (60.7)
Expenditure equal earnings	15 (5.5)
Expenditure more than earnings	93 (33.9)
Residence	
City	225 (81.8)
Village	50 (18.2)
Living with	
Alone	26 (9.5)
Mother/father	25 (9.1)
Husband and children	217 (78.9)
Children	7 (2.5)
Caregiver	
Mother or sister	26 (9.5)
Husband and children	25 (9.1)
Husband and mother/sister	224 (81.9)
Received treatment	
Chemotherapy	168 (61.1)
Radiotherapy	5 (1.8)
Surgery	8 (2.9)
Chemotherapy & radiotherapy	7 (2.5)
Chemotherapy & surgery	59 (21.5)
All	26 (9.5)
Willingness to receive information	
Very much	86 (30.9)
Much	115 (41.8)
Medium	53 (19.2)
Low	10 (4.1)

Table 1. Continued.

Characteristics	No. (%)
Physical activity	
Any activity	97 (35)
Less than 30 minutes 3 times a week	100 (36.6)
More than 30 minutes 3 times a week	77 (28)
Other symptoms	
Fatigue	253 (92)
Pain	164 (60)
Vomiting	194 (70.5)
Shortness of birth	90 (32.7)
Sleep problems	90 (32.7)
Constipation	115 (41.8)
Hair loss	217 (78.9)
Age	43.62 (8.12)*

*Mean (SD).

(chemotherapy), which was associated with higher psychological and emotional needs. Consistent with the current study, Edib et al identified mental and emotional needs as the most unmet needs among breast cancer patients.[29] Compared to their older counterparts, young women with breast cancer suffer more mental distress, experience more anxiety and depression about the future and their role as mothers and are stressed with fear of cancer recurrence.[12] Moreover, these patients and their families have been shown to require more support and suitable mental consultations.[30] However, as the study by Lo-Fo-Wong in 2020 indicated, HCPs were more concentrated on resolving unmet physical needs, whereas the patients perceived the met mental support needs as very little.[31] These results highlight the importance of providing psychological interventions, support, and patient education to these patients.[32]

The findings of this study revealed that physical needs had the second highest mean score, followed by psychological needs and the domains of patient care, support, health system, and information needs. Finally, the lowest mean score was for sexual needs. Among the domains of care and support needs and information needs, “staff’s awareness and expressing sensitivity” and “access to consultation when needed” were the most frequent cases reported by the patients. Most recent studies have identified physical[31,33,34] and mental[29] aspects as the most significant unmet needs of women with breast cancer undergoing chemotherapy. Other studies have highlighted patients’ dissatisfaction with the information provided to them by health professionals.[19,35] Hence, the most common support needs of patients with breast cancer were the need for the “health system and information,” followed by “daily living activities”.[36] It should be noted that patients’ needs vary based on their stage of disease, personal needs, and culture,[34,37] which can explain the observed differences. The low reported levels of unmet sexual needs in the present study may be justified by the cultural status of Iranian society and the reluctance of women to confess these types of needs. Given the existing evidence that breast cancer and its treatment process threaten the sexual health of women,[38] optimal management of sexual life in women with breast cancer seems profoundly significant and can affect their QOL.[39]

The present study demonstrated that the mean QOL score was below average (under 50) among young women with breast cancer. In two separate research studies conducted by Bouya et al[40] and Sheikhalipour et al.[41] QOL for all cancer patients in Iran scored 57.88[40] and 61.14,[41] both above average. A recent study evaluating QOL for Iranian breast cancer patients revealed that the average QOL score in breast cancer patients was 57.1, which was higher than that in our study. The same figures were reported as 48.33 and 31.2 in Pakistan and Saudi Arabia, respectively, and above 60 in developed countries, such as Korea, Germany, and England.[40] A seemingly better QOL for cancer patients in developed countries may be influenced by the different living conditions in various countries.

According to the results of the present study, body image had the lowest mean score in the function domain of the QOL of breast cancer patients, using both the QLQ-BR23 and QLQ-C30 instruments, followed by sexual and physical function. These results are supported by previous studies in Iran[27,41] that reported the lowest scores for social, emotional, and role functioning,[42] social, emotional, and physical functioning,[43] and emotional, social, and role functioning.[44] Patients undergoing treatment for breast cancer experience a high level of dissatisfaction with their body image two years after receiving treatment.[45] The reason could be the differences in study methods, such as time and population. For instance, the present study was conducted on patients under 50 years of age during the outbreak of the COVID-19 pandemic. Given the consequences of coronavirus infection and strict preventive measures, this extraordinary situation in society has imposed extra difficulties on various aspects of the patient’s life, from physical and social aspects to follow-up and treatment of disease. Young women with breast cancer face numerous social challenges. Patients are unable to continue their social activities due to the negative effects of treatment.[15] Sometimes the beliefs and misconceptions of society regarding breast cancer cause patients to experience disease stigma and social isolation.[46] Under the COVID-19 pandemic, most patients with chronic and refractory diseases face difficult situations preventing infection. They often refrained from presenting to the treatment centers and following up on their therapies due to the fear of potential infection. As a result, they suffered more physical issues and limitations during this period. Moreover, most patients did not receive necessary support due to social distancing

Table 2. Mean scores of cancer quality of life (QLQ-C30) and (QLQ-BR23) and supportive care needs

Scale	Mean (SD)		Mean (SD)
QLQ-C30	39.06	QLQ-BR23	37.49
Functional domain	36.21(4.23)	Functional domain	40.66(4.57)
Physical functioning	25.77(3.42)	Body image	20.20(6.71)
Role functioning	35.02(3.19)	Sexual functioning	23.5(2.16)
Emotional functioning	41.75(4.14)	Sexual enjoyment	31.33(5.02)
Cognitive functioning	44(5.06)	Future perspective	56.02(4.53)
Social functioning	38.1(3.01)	Symptoms domain	34.32(5.99)
Symptoms domain	41.91(6.57)	Systemic therapy side effects	44.73(8.41)
Fatigue	42.75(4.56)	Breast symptoms	32.33(4.22)
Nausea and Vomiting	33(1.16)	Arm symptoms	12.97(2.90)
Pain	42.66(8.58)	Upset by hair loss	35.33(4.31)
Dyspnea	23.33(4.17)	Supportive care needs	87.25 (23.27) Range=34-170
Insomnia	28.31(3.11)	Physical and daily living	44.26(11.21)
Appetite loss	37.14(2.17)	psychological	56.66(12.33)
Constipation	27.01(4.21)	patient care and support	42(8.42)
Diarrhea	26.41(3.11)	Sexuality	15.30(6.52)
Financial difficulties	51.67(4.11)	health system and information	31.50(4.38)
		Total supportive care needs	87.25(23.27)

Table 3. Items of the 10 highest moderate-to-high unmet needs responses

Item		No. (%)	Domain
1.	Anxiety	137 (49.8)	Psychological needs
2.	Fears about cancer spreading	130 (47.3)	Psychological needs
3.	Worry that the results of the treatment are beyond your control	112 (40.7)	Psychological needs
4.	Hospital staff acknowledging and showing sensitivity to your feelings and emotional needs	100 (37.7)	Care and support needs
5.	Feelings of sadness	82 (36.4)	Psychological needs
6.	Having access to professional counseling (e.g. psychologist, social worker, counselor, nurse specialist) if you, family or friends need it	82 (29.8)	Health system and information needs
7.	Feeling down or depressed	81 (29.5)	Psychological needs
8.	Being informed about things you can do to help yourself to get well	78 (28.4)	Health system and information needs
9.	Being informed about cancer which is under control or diminishing (that is, remission)	73 (26.5)	Health system and information needs
10.	Being adequately informed about the benefits and side effects of treatments before you choose to have them	69 (25.1)	Health system and information needs

Table 4. Correlation between total supportive care needs and different domains of quality of life

Domains	Total supportive care needs	Physical and daily living	Psychological	Patient care and support	Sexuality	Health system and information
Functional domain (30)	R=-0.15, *P*=0.007	R=0.19, *P*=0.001	R=-0.2, *P*=0.001	R=0.08, *P*=0.61	R=0.05, *P*=0.34	R=-0.49, *P<0.001*
Functional domain (21)	R=-0.46, *P<0.001*	R=-0.46, *P<0.001*	R=-0.48, *P<0.001*	R= 0.20, *P= 0.04*	R=0.09, *P*=0.12	R=0.29, *P=0.04*
Symptom domain (30)	R=0.32, *P*<0.001	R=0.16, *P*=0.007	R=0.018, *P*=0.76	R=-0.02, *P*=0.69	R= -0.07, *P*=0.26	R=0.42, *P*<0.001
Symptom domain (21)	R=0.11, *P*=0.03	R=0.09, *P*= 0.13	R=0.09, *P*=0.04	R=0.06, *P*=0.21	R=-0.07, *P*=0.22	R=0.34, *P*<0.001

[*] Statistically significant (P<0.05). R: Pearson correlation analysis.

practices, which could affect the QOL of patients in the role and social functioning domains.[38]

The maximum mean scores in the symptom domain of QOL have been reported for financial difficulties, fatigue, and pain. Most studies have highlighted fatigue, pain,[47] appetite loss,[44] and insomnia.[41,42] However, their reported levels in other studies in Iran were lower than those in this study,[41,44] which suggests increased difficulties for patients due to the coronavirus pandemic. Financial difficulties exerted the greatest effect on women's QOL. Breast cancer patients face many economic challenges, including substantial treatment costs, the need for prolonged treatment, and losing their jobs as their income sources.[46] In addition to disease-associated economic problems, most families have encountered economic difficulties due to the COVID-19 lockdown and closure, which seems to exacerbate the patient's condition.[48]

The mean score in the functioning domain of the QLQ-BR23 was as low as 40.66 (4.57), which was less than that in other studies.[44,49] The reason for this discrepancy can be the occurrence of the COVID-19 pandemic and the negative consequences of lockdown and preventive measures, which have affected the various aspects of the patients' lives, reducing their QOL. In addition, in this domain, body image, sexual functioning, and sexual pleasure were ranked first to third, while other studies prioritized sexual functioning and sexual pleasure.[27,44] Young women seem more concerned about premature menopause, infertility, fear of disease relapse, body image, and sexual health, which can have a drastic impact on their QOL.[8,50,51] Consistent with the results of Mirzaei and colleagues' study, systemic side effects of drugs and worries about hair loss obtained the highest average in the symptom domain in the present study.[52]

According to the findings, there was a significant negative association between the functioning domains of QOL and support needs. The scores in the symptom domain of QOL are positively associated with care support needs. These findings align with the results of previous studies[43,44] and highlight the necessity of providing timely and suitable physical rehabilitation depending on the patient's needs in treatment centers following the primary period of breast cancer therapy.[29]

The current study found a significant negative relationship between the functioning domain of QOL and supportive care needs. Li et al reported that breast cancer patients with higher unmet needs have reported lower QOL[53] Previous studies also indicate that high levels of met care needs have demonstrated a positive association with physical and psychological health, high self-worth, positive thinking, and social relations. Meeting these needs results in improved psychological health and a sense of self-worth and promotes well-being by encouraging social relations.[14,29] The promotion of met care needs is efficacious in enhancing the QOL of chronic patients.[14] An increase in knowledge about the disease and treatment, receiving emotional support, and the attention of HCPs during care and treatment can influence mental well-being and QOL.[1] The increased knowledge of patients improves their decision-making, corrects their wrong beliefs about the treatment, and decreases their stress and fear about their health.[54] Attention and emotional support may fulfill the mental needs of patients, help their adaptation, and consequently enhance their QOL.[55] Therefore, taking measures to achieve better therapeutic approaches and using supportive therapies can be beneficial in reducing disease symptoms, such as pain, fatigue, nausea, and vomiting.[56] In this regard, developing care support programs for women with breast cancer undergoing chemotherapy treatment is essential to address all care support needs of patients, particularly in the physical and psychological aspects, and improve their QOL by meeting these needs.[57]

The present study has several limitations. Due to the convenience sampling of participants, this study may have been subjected to selection bias. Although the results suggest that unmet needs are associated with a low QOL, the cross-sectional design cannot accurately prove causality. Despite these limitations, the information gleaned in this study provides important insight into the QOL and the met and unmet supportive care needs of young women with breast cancer in Iran. It is suggested that future studies be conducted with larger sample sizes in other cities. Additionally, qualitative studies may further uncover the lived experiences of young women with breast cancer regarding their support needs.

Conclusion

Patients with breast cancer require various forms of supportive care during treatment. In the present study, psychological needs were identified as the most common unmet form of supportive care needs among breast cancer patients. It is essential to identify these supportive care needs early in the disease process and to continue them throughout the treatment trajectory and survivorship period. An unmet supportive care need may result in a low QOL. To reduce the psychological needs of patients and empower their caregivers, supportive care programs are essential, especially during the phase of chemotherapy or hormone therapy.

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Author's Contribution

Conceptualization: Parvaneh Aghajari, Mina Hosseinzadeh, Faranak Jabbarzadeh.
Data curation: Mina Hosseinzadeh.
Formal analysis: Mina Hosseinzadeh.
Investigation: Mina Hosseinzadeh.
Methodology: Parvaneh Aghajari, Mina Hosseinzadeh, Farnaz Rahmani.
Project administration: Mina Hosseinzadeh, Parvaneh Aghajari.
Resources: Parvaneh Aghajari, Mina Hosseinzadeh.
Software: Mina Hosseinzadeh.
Validation: Parvaneh Aghajari, Mina Hosseinzadeh, Farnaz Rahmani, Faranak Jabbarzadeh, Sheila Hurst.
Visualization: Mina Hosseinzadeh, Parvaneh Aghajari.
Supervision: Mina Hosseinzadeh, Parvaneh Aghajari.
Writing – original draft: Farnaz Rahmani, Faranak Jabbarzadeh, Mina Hosseinzadeh.

Research Highlights

What is the current knowledge?

- Young women with breast cancer face specific challenges due to their age and diagnosis, and their supportive care needs may differ from the general population.

What is new here?

- Psychological and emotional needs were identified as the most common unmet form of supportive care needs among breast cancer patients.

Writing – review & editing: Sheila Hurst.

Competing Interests

The authors declare no competing interests.

Data Availability Statement

The datasets used and/or analyzed in the current study are available through the corresponding author upon reasonable request. The data are not publicly available due to restrictions, e.g., their containing information that could compromise the privacy of research participants.

Ethical Approval

The present research project has been approved by the Vice-Chancellor for Research and the Ethics Committee of Tabriz University of Medical Sciences with the code IR.TBZMED.REC.(IR.TBZMED.REC.1398.602). The research goals, anonymity of participants, voluntary participation and study information were first verbally explained and then read and signed on written informed consent.

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References

1. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin. 2021; 71(3): 209-49. doi: 10.3322/caac.21660
2. World Health Organization (WHO). Iran, Islamic Republic of Source [Internet]. Geneva: WHO; 2022. Available from: https://gco.iarc.who.int/media/globocan/factsheets/populations/364-iran-islamic-republic-of-fact-sheet.pdf. Accessed May 15, 2024.
3. Rahimzadeh M, Pourhoseingholi MA, Kavehie B. Survival rates for breast cancer in Iranian patients: a meta- analysis. Asian Pac J Cancer Prev. 2016; 17(4): 2223-7. doi: 10.7314/apjcp.2016.17.4.2223
4. Nafissi N, Khayamzadeh M, Zeinali Z, Pazooki D, Hosseini M, Akbari ME. Epidemiology and histopathology of breast cancer in Iran versus other Middle Eastern countries. Middle East J Cancer. 2018; 9(3): 243-51. doi: 10.30476/mejc.2018.42130
5. Casey PM, Faubion SS, MacLaughlin KL, Long ME, Pruthi S. Caring for the breast cancer survivor's health and well-being. World J Clin Oncol. 2014; 5(4): 693-704. doi: 10.5306/wjco.v5.i4.693
6. Montazeri A. Health-related quality of life in breast cancer patients: a bibliographic review of the literature from 1974 to 2007. J Exp Clin Cancer Res. 2008; 27(1): 32. doi: 10.1186/1756-9966-27-32
7. Zebrack BJ, Mills J, Weitzman TS. Health and supportive care needs of young adult cancer patients and survivors. J Cancer Surviv. 2007; 1(2): 137-45. doi: 10.1007/s11764-007-0015-0
8. Bajpai J, Ventrapati P, Joshi S, Wadasadawala T, Rath S, Pathak R, et al. Unique challenges and outcomes of young women with breast cancers from a tertiary care cancer centre in India. Breast. 2021; 60: 177-84. doi: 10.1016/j.breast.2021.09.008
9. Campos FA, Rouleau E, Torrezan GT, Carraro DM, Casali da Rocha JC, Mantovani HK, et al. Genetic landscape of male breast cancer. Cancers (Basel). 2021; 13(14):3535. doi: 10.3390/cancers13143535
10. de Mello Morais Mata DG, Amir Carmona C, Eisen A, Trudeau M. Appraising adjuvant endocrine therapy in hormone receptor positive HER2-negative breast cancer-a literature review. Curr Oncol. 2022; 29(7): 4956-69. doi: 10.3390/curroncol29070394
11. Ahmadi Gharaei H, Dianatinasab M, Kouhestani SM, Fararouei M, Moameri H, Pakzad R, et al. Meta-analysis of the prevalence of depression among breast cancer survivors in Iran: an urgent need for community supportive care programs. Epidemiol Health. 2019; 41: e2019030. doi: 10.4178/epih.e2019030
12. Martinez-Cannon BA, Barragan-Carrillo R, Villarreal-Garza C. Young women with breast cancer in resource-limited settings: what we know and what we need to do better. Breast Cancer (Dove Med Press). 2021; 13: 641-50. doi: 10.2147/bctt.s303047
13. Gálvez-Hernández CL, González-Robledo MC, Barragán-Carrillo R, Villarreal-Garza C. Special needs of young women with breast cancer in limited resource settings. Rev Invest Clin. 2017; 69(4): 210-22.
14. Faller H, Hass HG, Engehausen D, Reuss-Borst M, Wöckel A. Supportive care needs and quality of life in patients with breast and gynecological cancer attending inpatient rehabilitation. A prospective study. Acta Oncol. 2019; 58(4): 417-24. doi: 10.1080/0284186x.2018.1543947
15. Hubbeling HG, Rosenberg SM, González-Robledo MC, Cohn JG, Villarreal-Garza C, Partridge AH, et al. Psychosocial needs of young breast cancer survivors in Mexico City, Mexico. PLoS One. 2018; 13(5): e0197931. doi: 10.1371/journal.pone.0197931
16. Rahmani A, Ferguson C, Jabarzadeh F, Mohammadpoorasl A, Moradi N, Pakpour V. Supportive care needs of Iranian cancer patients. Indian J Palliat Care. 2014; 20(3): 224-8. doi: 10.4103/0973-1075.138400
17. Abdollahzadeh F, Moradi N, Pakpour V, Rahmani A, Zamanzadeh V, Mohammadpoorasl A, et al. Un-met supportive care needs of Iranian breast cancer patients. Asian Pac J Cancer Prev. 2014; 15(9): 3933-8. doi: 10.7314/apjcp.2014.15.9.3933
18. Chae BJ, Lee J, Lee SK, Shin HJ, Jung SY, Lee JW, et al. Unmet needs and related factors of Korean breast cancer survivors: a multicenter, cross-sectional study. BMC Cancer. 2019; 19(1): 839. doi: 10.1186/s12885-019-6064-8
19. Miyashita M, Ohno S, Kataoka A, Tokunaga E, Masuda N, Shien T, et al. Unmet information needs and quality of life in young breast cancer survivors in Japan. Cancer Nurs. 2015; 38(6): E1-11. doi: 10.1097/ncc.0000000000000201
20. Hubbard G, Venning C, Walker A, Scanlon K, Kyle RG. Supportive care needs of women with breast cancer in rural Scotland. Support Care Cancer. 2015; 23(6): 1523-32. doi: 10.1007/s00520-014-2501-z
21. Tzelepis F, Paul CL, Sanson-Fisher RW, Campbell HS, Bradstock K, Carey ML, et al. Unmet supportive care needs of haematological cancer survivors: rural versus urban residents.

Ann Hematol. 2018; 97(7): 1283-92. doi: 10.1007/s00277-018-3285-x

22. Park BW, Hwang SY. Unmet needs and their relationship with quality of life among women with recurrent breast cancer. J Breast Cancer. 2012; 15(4): 454-61. doi: 10.4048/jbc.2012.15.4.454
23. Siddiqi A, Given CW, Given B, Sikorskii A. Quality of life among patients with primary, metastatic and recurrent cancer. Eur J Cancer Care (Engl). 2009; 18(1): 84-96. doi: 10.1111/j.1365-2354.2008.01021.x
24. Jabbarzadeh Tabrizi F, Rahmani A, Asghari Jafarabadi M, Jasemi M, Allahbakhshian A. Unmet supportive care needs of Iranian cancer patients and its related factors. J Caring Sci. 2016; 5(4): 307-16. doi: 10.15171/jcs.2016.032
25. Jie Y, Wang Y, Chen J, Wang C, Lin Y, Hu R, et al. Unmet supportive care needs and its relation to quality of life among adult acute leukaemia patients in China: a cross-sectional study. Health Qual Life Outcomes. 2020; 18(1): 199. doi: 10.1186/s12955-020-01454-5
26. Adong LR. Association Between Unmet Supportive Care Needs and Quality of Life Among Patients with Breast Cancer at Kenyatta National Hospital, Kenya [dissertation]. Nairobi: University of Nairobi; 2020.
27. Moodi M, Mohammadifard M, Miri M. Quality of life and its contributing factors among patients with breast cancer: a descriptive-analytical study. Mod Care J. 2017; 14(3): e67053. doi: 10.5812/modernc.67053
28. Montazeri A, Harirchi I, Vahdani M, Khaleghi F, Jarvandi S, Ebrahimi M, et al. The EORTC breast cancer-specific quality of life questionnaire (EORTC QLQ-BR23): translation and validation study of the Iranian version. Qual Life Res. 2000; 9(2): 177-84. doi: 10.1023/a:1008918310251
29. Edib Z, Kumarasamy V, Binti Abdullah N, Rizal AM, Al-Dubai SA. Most prevalent unmet supportive care needs and quality of life of breast cancer patients in a tertiary hospital in Malaysia. Health Qual Life Outcomes. 2016; 14: 26. doi: 10.1186/s12955-016-0428-4
30. Radecka B, Litwiniuk M. Breast cancer in young women. Ginekol Pol. 2016; 87(9): 659-63. doi: 10.5603/gp.2016.0062
31. Lo-Fo-Wong DN, de Haes H, Aaronson NK, van Abbema DL, den Boer MD, van Hezewijk M, et al. Risk factors of unmet needs among women with breast cancer in the post-treatment phase. Psychooncology. 2020; 29(3): 539-49. doi: 10.1002/pon.5299
32. Martínez Arroyo O, Andreu Vaíllo Y, Martínez López P, Galdón Garrido MJ. Emotional distress and unmet supportive care needs in survivors of breast cancer beyond the end of primary treatment. Support Care Cancer. 2019; 27(3): 1049-57. doi: 10.1007/s00520-018-4394-8
33. Shahsavari M, Bolourchifard F, Ilkhani M, Shakeri N, Safavi Bayat Z. The supportive care needs of Iranian women with breast cancer treated with chemotherapy. Int J Adv Biotechnol Res. 2016; 7(4): 1641-9.
34. Mohammadzadeh Nimekari M, Saei Ghare Naz M, Ashouri Taziani Y, Nasiri M, Evazi MR, Shafizad A, et al. Correlation between supportive care needs of women with breast cancer and quality of life of their family caregivers. Int J Community Based Nurs Midwifery. 2019; 7(4): 300-8. doi: 10.30476/ijcbnm.2019.73892.0
35. Zhang T, He H, Liu Q, Lv X, Song Y, Hong J. Supportive care needs of patients with lung cancer in Mainland China: a cross-sectional study. J Nurs Res. 2019; 27(6): e52. doi: 10.1097/jnr.0000000000000338
36. Faghani S, Mohammadian R, Rahmani A, Mohajjel-Aghdam AR, Hassankhani H, Azadi A. Supportive care needs of Iranian cancer survivors and relationships with social support. Asian Pac J Cancer Prev. 2015; 16(15): 6339-45. doi: 10.7314/apjcp.2015.16.15.6339
37. Effendy C, Vissers K, Osse BH, Tejawinata S, Vernooij-Dassen M, Engels Y. Comparison of problems and unmet needs of patients with advanced cancer in a European country and an Asian country. Pain Pract. 2015; 15(5): 433-40. doi: 10.1111/papr.12196
38. Gathani T, Dodwell D, Horgan K. The impact of the first 2 years of the COVID-19 pandemic on breast cancer diagnoses: a population-based study in England. Br J Cancer. 2023; 128(3): 481-3. doi: 10.1038/s41416-022-02054-4
39. Sebri V, Durosini I, Triberti S, Pravettoni G. The efficacy of psychological intervention on body image in breast cancer patients and survivors: a systematic-review and meta-analysis. Front Psychol. 2021; 12: 611954. doi: 10.3389/fpsyg.2021.611954
40. Bouya S, Koochakzai M, Rafiemanesh H, Balouchi A, Taheri S, Badakhsh M, et al. Health-related quality of life of Iranian breast cancer patients: a meta-analysis and systematic review. Breast Cancer Res Treat. 2018; 170(2): 205-12. doi: 10.1007/s10549-018-4750-x
41. Sheikhalipour Z, Ghahramanian A, Fateh A, Ghiahi R, Onyeka TC. Quality of life in women with cancer and its influencing factors. J Caring Sci. 2019; 8(1): 9-15. doi: 10.15171/jcs.2019.002
42. Zhu L, Yao J, Schroevers MJ, Zhang H, Xie J, Liu A, et al. Patterns of unmet supportive needs and relationship to quality of life in Chinese cancer patients. Psychooncology. 2018; 27(2): 600-6. doi: 10.1002/pon.4554
43. Chen Q, Li S, Wang M, Liu L, Chen G. Health-related quality of life among women breast cancer patients in eastern China. Biomed Res Int. 2018; 2018: 1452635. doi: 10.1155/2018/1452635
44. Mirzaei F, Nourizadeh R, Hemmatzadeh S, Eghdam Zamiri R, Farshbaf-Khalili A. Supportive care needs in females with breast cancer under chemotherapy and radiotherapy and its predictors. Int J Womens Health Reprod Sci. 2019; 7(3): 366-71. doi: 10.15296/ijwhr.2019.60
45. Fingeret MC, Teo I, Epner DE. Managing body image difficulties of adult cancer patients: lessons from available research. Cancer. 2014; 120(5): 633-41. doi: 10.1002/cncr.28469
46. Iddrisu M, Aziato L, Ohene LA. Socioeconomic impact of breast cancer on young women in Ghana: a qualitative study. Nurs Open. 2021; 8(1): 29-38. doi: 10.1002/nop2.590
47. Mehrabi F, Hekmatpou D, Abolfathi A. The relationship between demographic characteristics and quality of life in patients with cancer. Health Res J. 2019; 5(1): 8-15. doi: 10.29252/hrjbaq.5.1.8
48. Dean LT, Moss SL, Ransome Y, Frasso-Jaramillo L, Zhang Y, Visvanathan K, et al. “It still affects our economic situation”: long-term economic burden of breast cancer and lymphedema. Support Care Cancer. 2019; 27(5): 1697-708. doi: 10.1007/s00520-018-4418-4
49. Konieczny M, Cipora E, Sygit K, Fal A. Quality of life of women with breast cancer and socio-demographic factors. Asian Pac J Cancer Prev. 2020; 21(1): 185-93. doi: 10.31557/apjcp.2020.21.1.185
50. An J, Zhou K, Li M, Li X. Assessing the relationship between body image and quality of life among rural and urban breast cancer survivors in China. BMC Womens Health. 2022; 22(1): 61. doi: 10.1186/s12905-022-01635-y
51. Yeo W, Mo FK, Pang E, Suen JJ, Koh J, Yip CH, et al. Quality of life of young Chinese breast cancer patients after adjuvant chemotherapy. Cancer Manag Res. 2018; 10: 383-9. doi: 10.2147/cmar.s149983
52. Mirzaei F, Farshbaf-Khalili A, Nourizadeh R, Eghdam Zamiri R. Quality of life and its predictors in Iranian women with breast cancer undergoing chemotherapy and radiotherapy. Indian J

Cancer. 2021; 58(1): 76-83. doi: 10.4103/ijc.IJC_750_18

53. Li M, Zhou K, Huo L, He X, An J, Wang W, et al. Perceived needs and health-related quality of life in women with breast cancer undergoing chemotherapy: a cross-sectional study. BMJ Open. 2022; 12(11): e062407. doi: 10.1136/bmjopen-2022-062407
54. Banning M, Tanzeen T. Living with advanced breast cancer: perceptions of Pakistani women on life expectations and fears. Cancer Nurs. 2014; 37(1): E12-8. doi: 10.1097/NCC.0b013e318279e479
55. Shea-Budgell MA, Kostaras X, Myhill KP, Hagen NA. Information needs and sources of information for patients during cancer follow-up. Curr Oncol. 2014; 21(4): 165-73. doi: 10.3747/co.21.1932
56. Hamer J, McDonald R, Zhang L, Verma S, Leahey A, Ecclestone C, et al. Quality of life (QOL) and symptom burden (SB) in patients with breast cancer. Support Care Cancer. 2017; 25(2): 409-19. doi: 10.1007/s00520-016-3417-6
57. Hediya Putri R, Afiyanti Y, Ungsianik T, Milanti A. Supportive care needs and quality of life of patients with gynecological cancer undergoing therapy. Enferm Clin. 2018; 28: 222-6. doi: 10.1016/s1130-8621(18)30072-x