



Determination Of Cancer Needs and Quality of Life of Women with Breast Cancer in Babylon

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ABSTRACT

Background: Breast cancer is an abnormal growth of breast cells, a common chronic disease in women that causes death in the developed countries. Quality of life for women with breast cancer is negatively affected in places where their psychological, social, physical, and daily needs are not met.

Objectives: This study aimed to determine the cancer care needs and quality of life of women with breast cancer in Babylon.

Methodology: The study was conducted between 1 June 2022 and 1 September 2022 in the Oncology Unit of Imam Sadik Hospital and the Babylon Oncology Center. The sample of the study consisted of 160 women with breast cancer who met the sample criteria. It was a cross-sectional study. The data were collected with the sociodemographic and clinical characteristic form, the cancer need questions short form (CNQ-SF), and the World Health Organization Quality of Life Scale-Short Form (WHOQOL-BREF).

Results: The mean age of women was 51 ± 13.13 ; 34.4% were primary school graduates, 90.6% were married, 80.6% had children, 76.3% were housewives, 94.4% were non-smokers, 55% had income equal to expenditure, 39.4% is the second stage. 61.3% of the women had less than one year of disease duration, and 63.1% had no family history. The mean scores of the sub-dimensions of cancer needs form were; Physical needs 19.31 ± 5.27 , psychological needs 30.78 ± 10.02 , interpersonal communication needs 6.91 ± 2.37 , patient care and support needs 16.84 ± 3.98 , and Health information needs 24.23 ± 6.92 . The mean score of the sub-dimension of the quality of life scale; general quality of life 6.34 ± 1.54 ; physical health 19.76 ± 4.41 , psychological health 17.74 ± 3.96 , social relations 9.31 ± 2.28 , environmental health 23.21 ± 5.02 . There was a statistically significant difference between the total score of cancer needs scale and the sub-dimensions of the quality of life scale (physical health, social relations, environment, psychological health, and general quality of life) at the weak-moderate level ($r = -0.298, -0.323, -0.368, -0.433, -0.473$), respectively.

Conclusion: Women diagnosed with breast cancer in Babylon, Iraq, experience moderate levels of needs and quality of life. Their most prompted concern was access to health information.

Keywords: Breast Cancer, Iraq, Cancer needs, Quality of life.

INTRODUCTION

Breast cancer is an abnormal growth of breast cells, a common chronic disease in women that causes death in the developed countries, and the

five-year survival rate is about 80%, while in developing countries, it is less than 40% (Łukasiewicz et al., 2021).

Breast cancer is the second leading cause of death and the most common cause of death among women. It is a heterogeneous disease in its development and exacerbation. According to Global Cancer Observatory (GLOBOCAN) statistics, in 2008 the incidence of breast cancer increased from 1.4 to 1.7 million, in 2012 there was an increase of 21.4% in breast cancer in most countries of the world. As for the deaths in 2008, the rate increased, reaching 805 per 100,000 deaths, and in 2012 it reached 932 per 100,000 deaths (Adam & Koranteng, 2020). By the end of 2020, 2.3 million women worldwide have been diagnosed with breast cancer and 685,000 deaths. In the past five years, 7.8 million women were diagnosed with breast cancer (Who, 2021). In Iraq, the number of female breast cancer cases was found to be 7,515 new cases, estimated at 22.2%, as it ranks first among all types of cancers. The lack of health awareness had a significant impact on the exacerbation of the disease, as most of the diagnosed cases were of the third and fourth degree (Ibrahim et al., 2022).

Quality of life for women with breast cancer is negatively affected in places where their psychological, social, physical, and daily needs are not met. When patients suffer, during the stages of diagnosis, treatment, and continuous follow-up of the health condition, from a wide range of side effects, complications, and stressors, that raise their needs and reduce their quality of life, which affects diagnosis and response to treatment (Hashemi et al., 2019).

Usually, every patient is at different stages of breast cancer, where it faces different problems and needs and is surrounded by its own circumstances that differ from others, there is a need to allocate comprehensive care to each patient based on a comprehensive periodic assessment of needs. Because the patient suffers from the sadness and feelings of uncertainty and fear of the future and fear of recurring the disease, patients may lose control of

their lives because their usual routine is severely disrupted (Cochrane et al., 2021).

Women diagnosed with breast cancer suffer from weakness and stress, both physical and mental, because of the disease and the multiple therapeutic interventions, approximately 70% of women with advanced tumors experience severe pain and functional impairment. This results from loss of muscle strength, poor balance, and fatigue, which causes physical inactivity, which in turn causes functional weakness. It thus results in general impairment and deterioration of quality of life (QoL) (Iddrisu et al., 2020).

Patients react to their illnesses in different ways, and this leads to anxiety and depression. Thinking about negative consequences creates psychological needs, and affects focus and the ability to work, as a result of the negative mood experienced by the patient. Anxiety is caused by physical factors such as age, hormonal changes, and side effects of treatments and psychological factors such as the negative expectation of the disease, changing the lifestyle of the patient, and adherence to treatments (Triberti et al., 2019).

Cancer patients need a lot of information about the disease, this improves the process of making appropriate decisions to start treatment, and continue and control cancer, in addition, communication between the patient and the medical staff has a positive effect on patient education and satisfaction. Communication is essential to provide the patient with valuable information, which is the basis of nursing care (Khoshnood et al., 2019).

Women with breast cancer reported their needs and desires for assistance, and the prevalence of needs reached 70%, most of which were psychological and information about the health system, and the fear of possible recurrence. These needs may persist for more than 10 years after diagnosis, such as fatigue, psychological burnout, poor physical fitness, restricted movement,

lymphedema, insomnia, cognitive impairment, and menopausal symptoms (Lo-Fo-Wong et al., 2019).

Women with breast cancer lack the support, social, psychological, and information provided to them. About 40% of women reported that they need psychological and social support, which means a decrease in their quality of life decreases, and a rise in emotional disability as a result of a lack of information. It is essential to understand the needs of women with breast cancer and provide them with supportive care. Providing education and psychological and social support, as women with breast cancer are the most in need among the population (Dinapoli et al., 2021).

Meeting the psychological and social needs of breast cancer patients has a positive effect on improving the outcomes of medical care and reducing the demand for medical services, in addition to ensuring patient satisfaction (Okati-Aliabad et al., 2021).

During the first year of breast cancer diagnosis, patients experience emotional distress as they have severe emotional problems, especially younger women. The age group between 18 and 39 years is at risk of psychological problems such as anxiety, depression, and suicidal ideation compared to older women. The needs of young women must be taken into account early (Naik et al., 2020).

Patients with breast cancer are exposed to financial burdens despite their health insurance. Patients and their families with low income may face financial difficulties and these needs may persist if not addressed, where providing appropriate care plans and financial assistance, or providing medical needs through health insurance or government support, to ensure that the financial needs of patients are met (Kong et al., 2020).

In the Arab world, other sources mentioned that the needs of women with breast cancer were not identified, except for one study that assessed the needs of cancer in general (Sharour, 2020). Iraq, to our knowledge, this subject has not been studied

previously. The importance of our study lies here, in that women with breast cancer have many complex needs. If these needs are neglected and not met, this leads to severe distress and the destruction of their quality of life. It is necessary to assess the needs and quality of life, to increase the physical, psychological, and social well-being of breast cancer patients.

AIMS OF THE STUDY

This study aimed to determine the cancer care needs and quality of life of women with breast cancer in Babylon.

METHODOLOGY

Design of the study

It is cross-sectional.

Setting of the study

Data were collected from the Iraq Oncology Unit of Imam Sadik Hospital and Babylon Oncology Center, a specialized medical facility for cancer treatment located in Babylon, Iraq.

Study sample

The number of women with breast cancer in Babylon province reached 266 women. It was determined that there should be at least 160 women with breast cancer. The Yamane formula was used to calculate the sample size, where the confidence level was adopted at 95% and the error level was 0.05% (Sarmah et al., 2013).

The inclusion criteria

Female, 18 years old or older, diagnosed with breast cancer, agreed to participate in this study and can speak and understand Arabic language.

The exclusion criteria

Those with a mental or cognitive disability, patients with significant medical issues, and those who refused to give consent were excluded.

Data collection

A questionnaire was used to collect data, applied a face-to-face interview technique to the women with breast cancer who met the research criteria in Babylon, Iraq. The required duration of

each interview was approximately 25 minutes. The data collection procedures continued between 1 June 2022 and 1 September 2022.

Research instrument

A questionnaire consisting of three different parts was used as a data collecting tool: The sociodemographic and Clinical Characteristics Form, the Arabic version of the Cancer Needs Questionnaire (CNQ-SF), and the Arabic version of the World Health Organization Quality of Life Instrument- Short Form (WHOQOL-BREF),

- Part one: Sociodemographic and clinical characteristics form

It was prepared on the basis of the literature and consists of 14 questions that include age, marital status, educational level, income level, occupation, children's status, smoking status, history of breast cancer diagnosis, family history of breast cancer, birth control pills, methods of treatment, comorbidities, stage of the disease, and the type of surgery performed (Sharour, 2020, Edib et al., 2016, Lattimore-Foot, 1996, Hubbard et al., 2014).

- Part two: The Arabic version of the cancer needs questionnaire-short form (CNQ-SF)

The scale was originally developed by Lattimore-Foot G.G (Lattimore-Foot, 1996). Translation and Validation into the Arabic Version were done by Loai Abu Sharour (Sharour, 2020). The scale measures the needs of cancer patients with breast cancer. It has five needs areas with 32 items: psychological domain (11 items), health information needs (7 items), physical and daily needs (6 items), patient care and support needs (5 items), and interpersonal/communication needs (3 items). The scale has 5 points, which is a Likert scale (1 = no need to 5 = high need for help)

The score ranges from 32 to 160 which means a high score indicates a high need for help. The scale in the Arabic version was reliable, with a Cronbach's alpha of 0.83. No changes were made to the translated instrument (Sharour, 2020).

- Part Three: Arabic version of the WHOQOL-BREF scale

The WHOQOL-BREF scale was used in this study. The World Health Organization developed this scale in 1997. A validity and reliability study was carried out by Ohaeri and Awadalla in 2009 and it was determined that it was adapted to the Arab society and found suitable. The Arabic version of the WHOQOL-BREF is a 26-item scale. Response options range from 1 (Very dissatisfied/Very bad) to 5 (Very satisfied/Very good). The scale consists of four sub-dimensions: physical health (7 items) and the score ranges from 7 to 35, psychological health (6 items) and the score ranges from 6 to 30, social relationships (3 items) and the score ranges from 3 to 15 and the environment (8 items) the score ranges from 8 to 40.

In addition, there are two general quality of life items that are examined separately: The first question is the individual's perception of the general quality of life, and the second question asks about the individual's perception of general health score ranging from 2 to 10. A higher score indicates a better quality of life. In the study, it was adapted to the Arabic language and the Cronbach alpha coefficient of the scale was found to be 0.93 (Ohaeri & Awadalla, 2009).

Ethics approval

The approval of the Ministry of Health and Environment of Iraq/ Babylon Health Department/Training and Human Development Center was obtained with the Ministry Decision No: 70 on June 14th, 2022. The student researcher also received research ethics with decision No: 25 from the Çankırı Karatekin University on March 17th, 2022. The consent of all patients was obtained before the sample collection.

Data analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS) for Windows version 26. The descriptive statistical measures of frequency, percentage, mean, and standard deviation were used to describe the subjects'

sociodemographic and clinical characteristic forms. The distribution related to Kolmogorov-Smirnov in the results section was not normal. Spearman correlation was used.

RESULTS

The results of this study revealed that the average age of the women was 51 ± 13.13 , 34.4% of the women were primary school graduates, 90.6% of them were married, 80.6% had children, 76.3% were housewives, 94.4% were non-smokers, 55% of them were of average financial condition, and 39.4% of them were in the second stage of the disease, 61.3% of them had a duration of cancer diagnosis less than a year, 63.1% of them had no family history, 65% did not take birth control pills, 60% of them had chronic diseases, 36.9% of them had high blood pressure and 25% had diabetes, 4.4% had asthma, 6.9% had heart diseases, 26.3% had joint diseases and 9.4% had gastrointestinal diseases. Regarding treatment, 84.4% of them had surgery, 73.1% of them had a mastectomy, 11.3% had breast-conserving surgery, 99.4% received chemotherapy, 37.5% received radiotherapy, and 30.6% had hormone therapy (Table 3.1).

This study showed that the needs of women diagnosed with breast cancer in Iraq are at a moderate level, where the mean overall scale score was 98.07 ± 20.05 . As for the sub-dimension, they were as follows: Physical needs 19.31 ± 5.27 , psychological needs 30.78 ± 10.02 , interpersonal communication needs 6.91 ± 2.37 , patient care and support need 16.84 ± 3.98 , and Health information needs 24.23 ± 6.92 (Table 3.2).

The study results show that women with breast cancer in Iraq have a moderate quality of life. The mean score of the general quality of life was 6.34 ± 1.54 ; physical health was 19.76 ± 4.41 , psychological health was 17.74 ± 3.96 , social relationship was 9.31 ± 2.28 , environmental health was 23.21 ± 5.02 (Table 3.3).

The results of the study revealed a statistically significant negative correlation between the total score of the cancer needs scale and the sub-dimensions of the quality of life scale (physical health, social relationships, environment, psychological

health, and overall QoL) at low and moderate levels ($r = -0.298, -0.323, -0.368, -0.433, -0.473$), respectively (Table 3.4).

DISCUSSION:

The results of the study revealed that the needs of women diagnosed with breast cancer in Babylon, Iraq are at a moderate level. This result may be related to most patients having less than 1 year of diagnosis of breast cancer and at II and III stages and taking cancer treatments. In the studies the findings are similar to our findings, they found that few women with cancer were in need of health systems and information, psychological, physical, and daily living, patient care and support, and sexuality (Park & Hwang, 2011, Hubbard et al., 2014). Another study supported the present study, in which they found that the physical and emotional needs of women with breast cancer were the most frequently reported (Capelan et al., 2017). They found that the information on the spread of the disease and the chances of cure was extremely important for the majority of the patients, respectively. Information on treatment side effects and genetic risk was also extremely important for most of the patients. On the other hand, patients expressed less preference for information on sexual attractiveness, social life, self-care, and family impact (Obeidat & Khrais, 2014). The finding of Gálvez-Hernández et al. (2021) is different from study result and their result shows that breast cancer patients had high unmet needs.

This is related to the differences in culture and health services provided to patients. Regarding the sub-dimensions, the results of this study declared that Health information needs had the highest mean among other dimensions. And this result is consistent with a study that found that women with breast cancer had a higher mean in information (Hubbard et al., 2014). The study in Japan indicated that all participants received information on the results of diagnostic tests, and few of them were unsatisfied with overall communication with medical professionals (Miyashita et al., 2014).

While Capelan et al. (2017) found that the physical dimension of women with breast cancer had a higher mean. Park and Hwang (2011) found that the sample's most common unmet needs were aching joints and fatigue. This result is inconsistent with the findings of the present study, which may be attributed to differences in the measurement instruments used to assess women's needs, as well as cultural variations.

The study findings indicated that women with breast cancer in Babylon, Iraq, have a moderate quality of life. The studies by (Zaharani et al., 2019, Ngan et al., 2021) supported our finding, as they stated that most of the patients with breast cancer in their study had a good quality of life. In another study, the result indicated that women had a good quality of life (functional well-being, emotional well-being, physical well-being, and anxiety/depression) (Al-Kaylani et al., 2022). The following studies are in line with the present study, and this may be related to women with cancer taking the treatment against cancer and enhanced in their life. On the other hand, Chopra and Kamal (2012) found that patients with breast cancer had poorer quality of life. The discrepancy between this study and the findings of the present study may be attributed to the inclusion of patients with advanced stages of cancer.

Regarding the sub-dimensions of QOL, the results of the study showed that physical and psychological health are the lowest dimensions in the quality of life of women with breast cancer, respectively, among other dimensions. The most common problems in cancer patients are pain associated with discomfort, lack of movement, and an increased need for medical care. The spiritual aspects can be improved, especially in situations where physical health is absent. It has a significant impact on the assessment of the quality of life (Obročníková et al., 2017, Chopra & Kamal, 2012, Zaharani et al., 2019). Unlike the present study, another study found that most patients did not report issues related to mobility, self-care, daily activities, or

anxiety and depression (Ngan et al., 2021, Yusoff et al., 2022). This discrepancy may be explained by differences in the study population, as the other study included patients in more advanced stages of cancer, which could influence their perception of these factors.

In this study, it was found that the total cancer needs of patients with breast cancer had a negative significant relationship with physical health, psychological health, social relationships, environment, and overall QoL. This finding is supported by similar studies conducted for the same purpose. Park and Hwang (2011) found that the quality of life is negatively associated with psychological needs and physical and daily living needs. Unmet needs of cancer rehabilitation are strongly associated with quality of life (Hansen et al., 2012). Breast cancer survivors were likely to have poorer QoL with greater physical and psychological needs (So et al., 2014). The finding of Edib et al. (2016) study revealed that early breast cancer survivors with advanced-stage diagnoses who had greater physical and psychological needs were significantly associated with poor quality of life. Also, Palmer et al. (2016) found that the physical and mental quality of life was associated with unmet needs. Mirošević et al. (2022) found that a lower quality of life is associated with a high level of unmet needs. On the other hand, Saatci et al. (2007) found that there was a significant correlation between the QoL score and the unmet needs score. This difference may be related to the different instruments to measure the study problem.

CONCLUSIONS:

1. Women diagnosed with breast cancer in Babylon, Iraq, experience moderate levels of needs and quality of life. Their most pressing concern is access to health information.
2. There is a weak to moderate negative correlation between their overall needs and quality of life,

suggesting that higher unmet needs are associated with a lower quality of life.

RECOMMENDATIONS:

Enhanced and educating women with breast cancer, to reduce their needs and improve their quality of life.

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TABLES:

Table (1): Women's sociodemographic and clinical characteristics (n = 160)

Variables		Min-Max	Mean±SD
Age (years)		28-85	51±13.13
		N	%
Level of education	Illiterate	41	25.6%
	Primary school	55	34.4%
	Secondary school	25	15.6%
	High school	16	10.0%
	University	23	14.4%
Marital Status	Single	15	9.4%
	Married	145	90.6%
Do you have children?	Yes	129	80.6%
	No	31	19.4%
Working Status	Housewife	122	76.3%

	Student	3	1.9%
	Employee	25	15.6%
	Retired	10	6.3%
Smoker	Yes	9	5.6%
	No	151	94.4%
Income	Income is less than expenses	66	41.3%
	Income equals expense	88	55.0%
	Income more than expenses	6	3.8%
Stage of the Disease	Stage I	21	13.1%
	Stage II	63	39.4%
	Stage III	60	37.5%
	Stage IV	16	10.0%
Duration of the cancer diagnosis	Less than 1 year	98	61.3%
	1 year -5 years	38	23.8%
	More than 5 years	24	15.0%
Type of Surgery	Breast-conserving surgery	18	11.3%
	Mastectomy	117	73.1%
	Don't	25	15.6%
Family history	Yes	59	36.9%
	No	101	63.1%
Birth Control Pills	Yes	56	35.0%
	No	104	65.0%
Chronic Disease	Yes	56	60.0%
	No	64	40.0%
Hypertension	Yes	59	36.9%
	No	101	63.1%
Diabetic	Yes	40	25.0%
	No	120	75.0%
Asthma	Yes	7	4.4%
	No	153	95.6%
Heart Disease	Yes	11	6.9%
	No	149	93.1%
Joint Disease	Yes	42	26.3%
	No	118	73.8%
Gastrointestinal Diseases	Yes	15	9.4%
	No	145	90.6%
Treatment Type			
Surgical	Yes	135	84.4%
	No	25	15.6%
Chemotherapy	Yes	159	99.4%
	No	1	0.6%
Radiotherapy	Yes	60	37.5%
	No	100	62.5%
Hormonotherapy	Yes	49	30.6%
	No	111	69.4%

Table (2): Levels of pregnant women's knowledge regarding folic acid

Domain CNQSF	Mean \pm SD	Min-Max
Physical need	19.31 \pm 5.27	9-30
Psychological need	30.78 \pm 10.02	11-53
Interpersonal communication need	6.91 \pm 2.37	3-14
Patient care and support need	16.84 \pm 3.98	9-25
Health information need	24.23 \pm 6.92	7-35
Total CNQSF Score	98.07 \pm 20.05	53-152

Table (3): Mean of the quality of life of women with breast cancer subdomains (n = 160)

Domains WHOQOL-BREF	Mean \pm SD	Min-Max
Physical health	19.76 \pm 4.41	7-29
Psychological health	17.74 \pm 3.96	8-27
Social relationship	9.31 \pm 2.28	4-14
Environment	23.21 \pm 5.02	10-36
Overall QoL	6.34 \pm 1.54	2-10

Table (4): Relationship between the CNQ-SF domains and the WHOQOL domains (n=160)

Domains	Physical health	Psychological health	Social relationships	Environment	Overall-QOL
Physical needs	-0.507**	-0.427**	-0.246**	-0.436**	-0.418**
Psychological needs	-0.357**	-0.592**	-0.418**	-0.467**	-0.556**
Interpersonal communications needs	-0.189*	-0.241**	-0.370**	-0.300**	-0.195*
Patient care and support needs	-0.119	-0.153	-0.226**	-0.250**	-0.120
Health information needs	0.168*	0.101	0.078	0.159*	-0.088
Total CNQ-SF	-0.298**	-0.433**	-0.323**	-0.368**	-0.473**