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THE SOCIAL DIMENSION OF QUALITY OF LIFE IN WOMEN WITH BREAST CANCER DURING CHEMOTHERAPY: RESEARCH REPORT

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Abstract

Background: *Breast cancer and its treatment can affect women's family relationships, social functioning, and financial well-being. This study assessed the social dimensions of quality of life among women with breast cancer undergoing chemotherapy.*

Objective: *To assess the social dimensions of quality of life among women with breast cancer undergoing chemotherapy at Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan.*

Methods: *A descriptive cross-sectional study was conducted at Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan. Convenience sampling was used to recruit 121 women aged 20–50 years who had completed at least three cycles of chemotherapy. Data were collected through face-to-face interviews using a questionnaire covering sociodemographic characteristics and nine social dimensions of quality of life. Findings were summarized using frequencies and percentages.*

Results: *Most participants were aged 41–50 years (51.2%), married (97.5%), and urban residents (68.6%). Severe distress or a great deal of distress experienced by family members was reported by 84.3% of participants. Financial burden and concern about breast cancer in daughters or close female relatives were reported at these levels by 68.6% and 59.5%, respectively. Overall, 33.9% indicated that the support they received was not at all sufficient to meet their needs. Severe interference or a great deal of interference with activities at home was reported by 33.1%. However, 58.7% reported no interference with personal relationships, and 49.6% reported no illness-related isolation.*

Conclusion: *Family distress, financial burden, and concern for female relatives were prominent social concerns among women receiving chemotherapy for breast cancer. These findings highlight the need to assess social support needs and consider family-focused support and financial assistance within cancer care.*

Introduction

Breast cancer is the most common cancer-affecting women having many high incidences in Pakistan and worldwide. Golbaly, in 2020, there were 684,996 deaths from breast cancer (WHO, 2021). It is estimated that in 2022, 43,250 women and 530 men will die of breast cancer. The family history of breast cancer increases the risk of breast

cancer, but the majority of women diagnosed with breast cancer do not have a known family history of the disease. The lack of a known family history does not necessarily mean that a woman is at reduced risk. Diagnosis and treatment of breast cancer results in physical and emotional distress due to fear of death, treatment side effects and feelings of social devaluation. Patients undergoing breast cancer treatment may suffer functional inability, altered self-image, and loss of breast sensitivity, anxiety, depression and other emotional and psychological alterations. Breast cancer treatment can highly be effective, achieving survival probabilities of 90% or higher, particularly when the disease is identified early. The treatment generally consists of surgery, radiation therapy and systematic therapy to control the disease is the breast, lymph nodes and the surrounding area. They are anti-cancer drugs given by mouth and intravenously to treat and/or reduce the risk of the cancer metastasis. Anti-cancer medicines, include hormone therapy, chemotherapy, and in some cases targeted biologic therapy. Women suffer from many minor and major, general and specific side effects through these therapies. They also suffered from psychological, social issues, and during treatment. The quality of life becomes also affected in these aspects. All domains of quality of life (QOL) effected by the cancer. The quality of life impairment from the start of the cancer and continues with the aggressive nature of treatment of camcer. Chemotherapy is the most common treatment modalities that patients receive to fight against cancer. Among 65% of the cancer population, 25% patients receive chemotherapy as the first line of treatment .Chemotherapy is used to treat cancers by killing the rapidly growing abnormal cells and is believed to lower the recurrence of cancer and increase the survival rate of patients. However, besides these therapeutic effects, it also has serious adverse effects which can have detrimental effects on the QOL of an individual Chemotherapy has very fearing effect on women life that might disturb the patients psychologically, physically and socially Shahraki et all (2019). The personal image disturbance, disturbance in relationship with family and society impact socially on breast cancer women's life. However, since the disease diagnosis and treatment have improved significantly by the time, at present in addition to social dimension, the quality of life has become an important outcome measure in breast cancer.

There is very minimum researches specifically on social dimension of quality of life in women with breast cancer during chemotherapy. In Pakistan, researcher work on the all aspects of their disease. Many woman's interpretation of living with the illness is subjective and influenced by their social and cultural life context, sense of wellbeing as well as religious beliefs. These all factors may support the types of suffering they have. Women with breast cancer experience suffering related to life dimensions: physical pain, spiritual, emotional, psychological and social forms of suffering. This experience can have an influence on how they manage with their illness. In Pakistan, even though breast cancer is the most common form of cancer in women, the experiences of patients and suffering they endure are relatively unknown. This study is to examine the social implications of breast cancer during chemotherapy.

The aim of this study is explores the social dimension of quality of life in women with breast cancer during chemotherapy.

Literature review:

World wide breast cancer is the most common cancer diagnosed among women, and a leading cause deaths in females. Breast cancer accounts for 23% of all cancer cases Globely. The breast cancer incidents has been increasing swiftly in the developing countries. Pakistan highlighted as the highest prevelance of breast cancer in Asian countries, where one in every nine women is at risk of developing breast cancer. In eastern countries, breast cancer is prevalent among women aged 60 years and above, whereas, in Asian countries, including Pakistan, it occurs during the reproductive age between 30 and 50 years. Therefore, women with breast cancer, in Pakistan, may face more challenges due to household and

child-rearing responsibilities as compared to those living in the western countries.

Based on literature review, American Cancer Society, (2019) stated various treatment modalities used in the management of breast cancer. These include surgery, chemotherapy, and radiotherapy, hormonal, targeted or biological therapies. Chemotherapy is one of the treatment modalities for treating breast cancer with or without other modalities and is recommended as soon as possible after the diagnosis has been made. Chemotherapy can be administered as an adjuvant or neo-adjuvant therapies to cure or palliate the disease ,American Cancer Society(2019). As per World Health Organization, (2015). Timely start of chemotherapy decreases the risk of spread and increases the chances for survival. However, sometimes, treatment is delayed for some reasons including severe unpleasant side effects experiences, which affect the general health status of the patient, cost and schedule. Studies have bean explored that side effects of chemotherapy seriously affect on patients' life, either it is physical or psychosocial well-being such as sexual life, inability to work or carry out normal daily activities at home, So these side effects are having a strong negative impact on the patients quality of life, Dempster et all (2015).

As per Lorusso et all (2016).The women diagnosed with breast cancer are treated with the chemotherapy involving multiple chemotherapeutic agents via different regimes. The chemotherapeutic agents have different toxicities and side effects that can affect the Patient's quality of life. It could be physical, psychological and social (Lobo, et al in 2014). Chemotherapy regimens are determined by treating oncologists in consultation with their patients depending on tumor stage and phenotypes.

Studies conducted over the past 20 years indicate that various forms of social engagement extend the lives of patients with breast cancer and result in a higher quality of life after the diagnosis. The survival data are affirmed by three large studies that examined the relationship between social networks and emotional support on survival after breast cancer diagnosis; specifically, women, who experience pre-diagnosis social isolation, have both a 66 % increase in risk of all-cause mortality and a two-fold increase in risk of breast cancer related mortality as compared to a socially integrated cohort.

Women with small social networks and low social support are at increased risk of breast cancer related mortality, whereas women with small social networks but high social support are not at increased risk. In contrast, women with larger social networks but greater social burden are at increased risk of breast cancer related mortality. Importantly, larger social networks and greater social support are also related to better physical and mental health-related quality of life and reduced breast cancer symptoms.

In addition to the social effects, it has been observed that influence of chemotherapy treatment on the psychological state of the woman affects their self-esteem, sexuality, body image, mood, family relationships and social skills. Thus, the patient experiences physical, psycho-emotional, spiritual, social and economic discomforts. That restrict directly in the quality of life. Patients undergoing Outpatient Chemotherapy require proactive measures to control treatment-related complications. Koboto et all (2020). In this regard, long-term therapies threaten women's ability to perform their social roles, either as a house wife or a working person, thus, affecting their quality of life Ghavam, et all (2012). Stated that, women the most important pillars of the family and society, improving the quality of life of those females, who have breast cancer, not only prolong their survival but also enhances the quality of life of the family as a whole in this disease. Nurses can provide self-care services to raise patients' quality of life and maintain their health; they may also help clients adapt themselves to the effects of the disease. Providing cancer patients with information about diagnosis, treatment, and reducing complications enable them to better participate in the decision-making process and eventually improve their quality of life.

The present study was conducted to explore the social dimension of quality of life among women with breast cancer undergoing chemotherapy at Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore. By identifying concerns related to family distress, social relationships, employment, household activities, financial burden, and concerns regarding relatives, this study aims to provide evidence for improving supportive oncology care (24).

The findings of this research may contribute to the development of patient-centred nursing strategies that incorporate psychosocial assessment, education, emotional support, and family involvement. Addressing social dimensions of quality of life may enhance coping mechanisms and improve the overall treatment experience of women living with breast cancer (25).

Methodology

A cross-sectional descriptive study was conducted to assess the social dimension of quality of life among women with breast cancer undergoing chemotherapy at the Chemotherapy Department of Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan. The study was conducted from May to July 2022. A total of 121 female patients diagnosed with breast cancer were included in the study. The sample size was calculated based on a previous study by Lobo et al. (2014), considering a 95% confidence interval, 5% desired precision, and population standard deviation of quality of life (28.06). Participants were selected through a convenience sampling technique. Women were eligible for inclusion if they were aged 20–50 years, diagnosed with breast cancer, had completed three cycles of chemotherapy, experienced chemotherapy-related side effects or psychosocial concerns, and provided informed consent for participation. Women who were unwilling to participate, had metastatic disease, were pregnant while receiving chemotherapy, or had mental health conditions affecting participation were excluded from the study. Data were collected through face-to-face interviews using a structured questionnaire consisting of two sections: demographic and treatment-related information, and a social dimension quality-of-life assessment questionnaire. Interviews were conducted in Urdu and English using a semi-structured interview guide, with each interview lasting approximately 25 minutes. The quality-of-life assessment tool consisted of nine questions related to social concerns and used a visual analogue scale ranging from 0 to 10, where 0 represented the least outcome and 10 represented the maximum outcome. The questionnaire assessed social aspects including family distress, social support, personal relationships, impact of illness on personal life, employment, household activities, social isolation, concerns regarding female relatives, and financial burden. Data were entered and analyzed using SPSS version 20, and descriptive statistics including frequencies, percentages, means, and standard deviations were used for analysis. Ethical approval was obtained from the Ethical Review Committee of Shaukat Khanum Memorial Cancer Hospital & Research Centre, and written informed consent was obtained from all participants. Confidentiality, privacy, and security of participant information were maintained throughout the study.

Results

121 participant data collected using a questionnaire as convenience sampling technique, all who went undergoing chemotherapy from the April to July 2021. The participants must complete their 3 cycles of chemotherapy. The following instruments was used: sociodemographic and clinical form; European Organization for Research and Treatment of Cancer 30-Item Quality of Life Questionnaire (EORTC QLQ-C30), version 3.0, in Portuguese; and Quality of Life Questionnaire Breast Cancer — 23 (QLQBR23). Only social concerns addressed after the SRC approval of the only one section of quality of life, which was social dimensions of women with breast cancer during chemotherapy. Physical and psychological concerns of quality of life was not addressed in this study. Questionnaire translated in Urdu version with approved Consent form the IRB committee of Shoukat Khanum

Memorial Cancer Hospital and Research Center Lahore. Presented the case two time in SRC and 2 times in IRB and continued liaisons with the research office of the hospital. 3 participants which are interviewed twice, their questionnaire and consent submitted to research office along with file.

Table 1 Sociodemographic Characteristics of Study Population

Variables	Numbers	Percentage	Mean	± Standard Deviation
Age:				
20-30 years (1)	10	8.3%	2.4298	.64325
31-40 years (2)	49	40.5%		
41-50 years (3)	62	51.2%		
Missing	0	0%		
Education level:				
(1). Primary School	15	12.4 %	3.5289	1.70330
(2). High School graduate	30	24.8 %		
(3). Intermediate	15	12.4 %		
(4). Graduate	19	15.7 %		
(5). Postgraduate	21	17.4 %		
(6) No formal Education	21	17.4 %		
Missing	0	0%		
Marital status:				
(1) Maried	118	97.5 %	1.0661	.42300
(2) Divorced	0	0 %		
(3) Widowed	1	0.8 %		
(4) Unmarried	2	1.7 %		
Missing	0			
Living status:				
(1) Rural	38	31.4 %	1.6860	.46607
(2) Urban	83	68.6 %		
Missing	0	0		
Household income:				
(1) Less Than 20000	51	42.1	2.1074	1.20969
(2) 21000-35000	32	26.4		
(3) 36000-50000	17	14.0		
(4) 51000-65000	16	13.2		
(5) More Than 65000	5	4.1		
Missing	0			
Residence:				
(1) Own	90	74.4	1.2562	.43835
(2) Rented	31	25.6		
Missing	0	0 %		

what extent does your illness affect your personal life? Therefore, the 51.2 % answered not at all. As the response of question, number 5, which was about the effect on employment and the answer, was not at all by 61.2 % because most of the female was housewives. Question number 6 response with severe and great deal, the both percentage was 33.1 because the activities disturbed by the chemotherapy at home. Question number 7 also answered not at all 49.7 %, because women said they do not feel isolation in the presence of their family. Question number 8 is about the concern towards daughter(s) or other close female relatives regarding breast cancer.

The concern showed 59.4% great deal and sever. 68.5 % showed that they have financial burden as response to the question number 9.

Table 2 Social Concerns Of the patient as per Quality of Life Scale (QOL)

Variables QOL Question.	Numbers	Percent	Mean	± SD
QOLQ # 1 How distressing has your illness been for your family?				
Not At all	3	2.47	8.6033	2.42377
Mild	6	4.95		
Moderate	10	8.26		
Severe	27	22.31		
A great deal	75	61.98		
Missing	0	0 %		
Total	121	100 %		
QOL Q # 2 Is the amount of support you receive from others sufficient to meet your needs?				
Not at all	41	33.9	4.3193	4.01677
Mild	17	14		
Moderate	19	15.7		
Severe	17	14		
A great deal	25	20.7		
Missing	2	1.7		
Total	119	98.3		
QOLQ # 3. Is your continuing health care interfering with your personal relationships?				
Not At all	71	58.7	2.4380	3.40317
Mild	10	8.3		
Moderate	21	17.4		
Severe	10	8.3		
A great deal	9	7.4		
Missing	0	0 %		
Total	121	100 %		
QOLQ # 4. To what extent does your illness affect your personal life?				
Not At all	62	51.2	3.495	3.97
Mild	6	5.1		
Moderate	15	12.3		
Severe	22	18.2		
A great deal	16	13.2		
Missing	0	0 %		
Total	121	100 %		
QOLQ # 5. To what degree has, your illness and treatment interfered with your employment ?				

Not At all	74	61.2	2.6348	3.90755
Mild	5	4.2		
Moderate	8	6.6		
Severe	12	10		
A great deal	16	13.2		
Missing	6	5		
Total	121	100		
QOLQ # 6. To what degree has, your illness and treatment interfered with your activities at home?				
Not At all	39	32.2	4.05	3.63
Mild	19	15.7		
Moderate	23	19		
Severe	30	24.8		
A great deal	10	8.3		
Missing	0	0 %		
Total	121	100 %		
QOLQ # 7. How much isolation do you feel is caused by your illness?				
Not At all	60	49.7	2.66	3.31
Mild	18	14.6		
Moderate	25	20.7		
Severe	9	7.5		
A great deal	9	7.5		
Missing	0	0		
Total	121	100		
QOLQ # 8. How much concern do you have for your daughter(s) or other close female relatives regarding breast cancer?				
Not At all	27	22.3	6.33	3.96
Mild	5	4.2		
Moderate	17	14.1		
Severe	27	22.2		
A great deal	45	37.2		
Missing	0	0		
Total	121	100 %		
QOLQ # 9 How much financial burden have you incurred as a result of your illness and treatment?				
Not At all	18	14.9	6.95	3.62
Mild	8	6.6		
Moderate	12	9.9		
Severe	36	29.7		
A great deal	47	38.8		
Missing	0	0		
Total	121	100		

Discussion:

Breast cancer, related with many physiological, genetic, lifestyle and environmental factors has the highest occurrence in women and represents the leading cause of deaths among women worldwide. According to recent estimates, the breast cancer has a highly variable incidence rate in different geographical areas with significantly higher prevalence in the developed countries as compared to developing countries. The disease has a constantly growing health burden worldwide.

Cancer is a serious and widespread disease that not only confers greater mortality, but also adversely affects the life of the patients. This contributes to an surprising burden of health in the under-developed world, and continues to rise as a main cause of early death. As much as 70% precious years of life are lost due to the burden of Cancer.

The study aimed to assess quality of life during chemotherapy and patient completed 03cycles of chemotherapy in Shoukat Khanum Memorial Cancer Hospital and Research Center. In this study, the distress level of family showed the significant difference with the respect to other questions that is 75%, which is great deal. The other highest score was observed for financial burden increased in result of disease and treatment was 68.5%. What degree has their illness and treatment interfered with their employment was answered 61%, not at all. Questions , Is your continuing health care interfering with your personal relationships, Is your continuing health care interfering with your personal relationships, and How much concern do you have for your daughters or other close female relatives regarding breast cancer? , was responded almost 58%, which is more than half. Rest of the responses were less than 50%, which shows the mild to not at all response.

Taking into the account the above discussion, our finding are very different, it was highly score to family stress, then interference of disease and treatment has high scored. On the other hand their illness and treatment interfered with their employment was answered 61%, , which was not at all.

Most of patient giving impact of comfortable life style, Most of them impressions family coping behavior, their concerns related to females and daughters in family was quite positive. Most of them answered as they have great confidence in their God and Allah.

CONCLUSION

Social dimension of quality of life in female with breast cancer during treatment was assessed in Shoukat Khanum Memorial Hospital & Research Centre.The study revealed high score in great deal for family stress at the time of in diagnosis of disease.

Total sample size was 121, approached to 135 after willingness of 121 participants interviewed time to time as per convenience after taking the consent. Three were interviewed twice so 3 participants was interviewed again and duplicate interviewed are removed. In 121 participants, all are female as per inclusion criteria. As provided the Sociodemographic data in Table 1, the age of the participants ranged from 20 to 50 years with the mean (SD) 2.429 (.643).

Out of 121 17.4 % have no formal education,17.4% was postgraduate ,15.7% was graduate,12.4% was intermediate,24.8% was passed 10th standard and other 12.4 % was primary education as per Pakistan standard of education they are all 5th class passed.

118 are married out of 121 so the married percentage is very high 97.5%, no divorced lady in the participants, 1 was widow and 2 are unmarried with the mean (SD) 1.06 (.423) 83 was the urban residency and 38 was rural so the 68.6% was Urban with the mean (SD) 1.686 .(466).

Household income categorized in 4 sections as showed in Table 1, 42.1 % was having low house hold income less than 20,000 and only 4.1 % have more than 60.000 per month income so the majority of the participants have poor socioeconomically status according to house hold income. 90% have own residence and 31 % have the rented residence.

Recommendations:

We should include the patients of other departments just like Inpatient Department of Shoukat Khanum Memorial Hospital & Research Center.

Limitations: This study had several limitations. One of them is age limit to be mentioned from 20 -50 years. The limitations of the results of this study are related to the cross-sectional design that does not allow establishing relations of cause and effect.

We can also include the patients of other departments just like Inpatient Department. Many patients refused to answer the questions, as they did not want to share their feelings, what they think & feel about their role in society and personal life.

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International Journal of Advanced Research

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