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ASSESSMENT OF QUALITY OF LIFE IN BREAST CANCER PATIENTS - A LITERATURE REVIEW

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ABSTRACT

Literature review plays an important role in disclosing the research advancements in important areas of research. It assists to understand the research gap. In this article, a concise review of the literature was made covering research and review papers that were published on quality of life in breast cancer patients from 1990-2016. It shows there is a need to focus on certain factors such as physical and psychological factors, functioning status, social relationships etc., for improving quality of life in breast cancer patients.

KEYWORDS: Psychological factors, QOL-Quality of Life, breast cancer.

INTRODUCTION

Breast cancer is a malignant tumor which usually grows in or around the breast tissue, mainly in the milk ducts and glands. A tumor usually starts as a lump or calcium deposit that develops as a result of abnormal cell growth. Most breast lumps are benign but can be premalignant (may become cancer).[1]

Breast cancer is classified as either primary or metastatic. The initial malignant tumor that develops within the breast tissue is known as primary breast cancer. Sometimes, primary breast cancer spreads to lymph nodes that are close by in the arm pit. Metastatic breast cancer, or advanced cancer, is formed when cancer cells located in the breast spread to other organs.[1]

Most commonly observed cancer in women is breast cancer. Annually, approximately 182,000 women were diagnosed and 40,000 die with breast cancer in US every year. It is the second-leading cause of cancer deaths among American women.[2] Breast cancer is now became common in INDIA. 144,937 women are newly detected with breast cancer every year. 70,218 women die of cancer. In India every 2 women are newly diagnosed with breast cancer and one is dying.[3] According to Indian council of medical research [ICMR] data in males-mouth/pharynx, esophagus, stomach, lung/bronchi cancers are seen. In female- cancers of cervical, breast, mouth/oropharynx, and esophagus are seen. Breast cancer is more seen in urban females [Mumbai, Delhi, Bangalore] in other areas cervical is mostly seen.[4]

Quality of life is important to everyone. Quality of life as a multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life. According to WHO [World Health Organization] quality of life is defined as individual perception of life, values, objectives, standards, and interests in the framework of culture. Health is seen by the public health community as a multidimensional construct that includes physical, mental and social domains.[5] Assessing QOL status in cancer patients is important for several reasons, particularly because it provides supplementary information about the impact of the disease and its treatment on cancer patients to aid physicians in selecting both antineoplastic and supportive-care therapy.[6]

Tools to measure HRQOL

Problems in interpreting results was observed in many cases because well-validated instruments have not been used. Kong and Gandhi[7] reviewed 265 articles reporting on HRQOL assessment in clinical trials in which only 23% provided reliability data, and only 21% provided validity data. Given the multidimensional nature of HRQOL data, it is important that researchers provide information on all measures used, including the domain investigated, even if not significant.[7] It must be stressed that, to many researchers, HRQOL is not a single/one-dimensional concept. The following are the most commonly used HRQOL scales are.

Table 1. List of HRQOL tools frequently used in oncology.

Name of measurement & Type
Short Form 36 (SF-36) -General European Organization for the Research and Treatment of Cancer QLQ-C30 (EORTC QLQ-C30) -Cancer specific Functional Assessment of Cancer Therapy-General (FACT-G) -Cancer specific Visual Analogue Scale-Cancer (VAS-C) -Cancer specific Hospital and Anxiety Depression Scale (HADS) Generic Profile of Mood States (POMS) -Cancer specific Rotterdam Symptom Checklist (RSCL) -Cancer specific

OBJECTIVES

- To search and analyze the relevant secondary literature published in research journals.
- To review the studies published on quality of life in breast cancer patients.

METHODOLOGY

Articles from research journals were collected and reviewed.

DISCUSSION

Various published articles were reviewed and brief summary was presented in the below table.

Table: 2 List of some paper reviews on quality of life in breast cancer patients [1990-2016].

S.#	Author[s]	Year	Main focus	Conclusion[s]
1	McEvoy and McCorkle[8]	1990	QOL in advanced breast cancer	Management of advanced breast cancer patients is associated with both current medical therapies and attention to critical factors to improve their QOL. Final concern is the relationship of social class to advanced disease. More attention should be given to people who are economically disadvantaged because cancer incidence and mortality are greater among poor people i.e., 50%. Women with breast cancer who are economically disadvantaged may be particularly receptive to interventions that will enhance their quality of life.
2	Ki Ebert *et al.*,[9]	1991	Impact of breast conserving surgery vs mastectomy on QOL	Between the two treatment modalities except for body image and sexual functioning in favor of breast conserving surgery three was no substantial differences. It is concluded that there is no solid proof of a better psychologic adjustment after breast-conserving treatment and that there are no substantial differences between the different treatment modalities in changes of life patterns and fears and concerns.
3	Aaronson[10]	1993	Assessment of QOL and	Improving of QOL can be achieved by using adjuvant

			benefits from adjuvant therapies	therapies. There is interest in incorporating a broader set of evaluation criteria that reflect the impact of the disease and of its treatment on the functional, psychological, and social health of the individual patient.
4	Bryson and Plusher[11]	1993	Tamoxifen as adjuvant therapy	Tamoxifen has a low cost utility ratio in postmenopausal women with node positive, estrogen receptor positive breast cancer. It is considered as a best [cost effective] choice for adjuvant treatment in breast cancer patients. This drug reduces economic burden on the patient and increases medication adherence, thus improves QOL.
6	Ganz[12]	1994	Review of various approaches to the measurement of QOL, important QOL issues in the treatment of breast cancer, and what is known about QOL of older women with breast cancer	QOL has been considered as one of the hard end-points for clinical cancer research and treatment of elderly cancer patients represents a typical situation where its assessment can be particularly useful, because the expected toxicity of treatment could be relevant in the discussion of the treatment choice. Ongoing and future research using newer approaches to QOL assessment should provide additional information.
7	Osoba[13]	1994	QOL as a treatment endpoint	Advances in understanding HRQOL in metastatic breast cancer will help the development of rational treatment policies.
8	Carlson[14]	1998	QOL in metastatic breast cancer	Clinician must balance antitumor activity, performance status, and the usual toxicity. These measures act as surrogates for QOL associated with each specific therapy.
9	Leedham and Ganz[15]	1999	Psychological concerns and mental health	Psychological concerns and mental health are important issues for breast cancer patients and should be recognized and treated when necessary.
10	Rustoen and Begum[16]	2000	Nursing practice	Nurses play an important role in meeting the needs of breast cancer patients, identify factors that influence QOL, and facilitate communication and helps to provide patient centered care. Thus help in improving QOL.
11	Shapiro *et al.*,[17]	2001	Relationship between psychosocial variables and QOL	A broader, more integrated framework that includes psychosocial factors is needed to evaluate breast cancer consequences.
12	Partridge *et al.*,[18]	2001	QOL before, during and after high dose chemotherapy.	Resulting transient impaired overall QOL with subsequent improvement over time.
13	Kurtz and Dufour[19]	2002	QOL in older patients with metastatic disease receiving either standard treatment or new drugs	Aromatase inhibitors (such as taxanes and orally administered chemotherapy) provide similar or a better QOL as compared to first line endocrine therapy with tamoxifen.
14	Costantino[20]	2002	Hormonal treatments in metastatic breast cancer patients	QOL data is useful for both clinicians and patients in evaluating treatment options and developing treatment strategies.
15	Fallowfield[21]	2004	Hormonal therapies	Tolerability profiles of available treatment options are highlighted.

16	Sammarco[22]	2004	QOL of older breast cancer patients	Outpatient and longterm care should become a key setting for implementation of QOL interventions for women with breast cancer.
17	Knobf[23]	2006	Endocrine effects of adjuvant therapy in younger survivors	Causes premature menopause that is associated with poorer QOL, decreased sexual functioning, menopausal symptom distress, psychosocial distress related to infertility.
18	Kayl and Meyers[24]	2006	Side effects of chemotherapy	QOL issues may help to guide patient-care decision.
19	Diel[25]	2007	Effectiveness of bisphosphonates on bone pain and quality of life in breast cancer patients with metastatic bone disease	Clinical trial data demonstrate that bisphosphonates offer significant and sustained relief from bone pain and can also improve quality of life in patients with metastatic breast cancer. New treatment schedules using high dose bisphosphonates can offer rapid relief of acute, and severe bone pain. Hence improving patients QOL.
20	Rozenberg *et al.*,[26]	2007	Comorbid conditions and breast cancer	Women with breast cancer and three or more comorbid conditions have a 20 fold higher rate of mortality from causes other than breast cancer and a 4fold higher rate of all-cause mortality when compared with patients who have none.
21	Ali Monterey *et.al.*[27]	2008	Quality of life in patients with breast cancer before and after diagnosis: an eighteen months follow-up study	The findings suggest that overall breast cancer patients perceived benefit from their cancer treatment in long-term. However, patients reported problems with global quality of life, pain, arm symptoms and body image even after 18 months following their treatments. In addition, most of the functional scores did not improve.
22	Fakhriya Jaber Alzabaidey[28]	2012	Quality of Life Assessment for Patients with Breast Cancer Receiving Adjuvant Therapy	Most of them were unable to have active life, they didn't have normal life, and in addition, the highest percentage of patients were worried about their future and both groups were not satisfied about their lives. The researchers recommended further research about the relationships between the socio-demographic variables and the quality of life for patient receiving adjuvant therapy
23	Damodar Gaddam[29]	2013	Assessment of quality of life in breast cancer patients at a tertiary care hospital.	These findings have shown that there exists a strong correlation between the length of treatment and the QOL among breast cancer patients.
24	Safaee, Moghimi-Dehkordi[30]	2015	Predictors of quality of life in breast cancer patients under chemotherapy	This study demonstrates the strength of the relationship between clinical and socio-demographical factors and breast cancer patients' quality of life. Psychological and financial support for women experiencing breast cancer diagnosis may improve quality of life.

CONCLUSION

Over the last decade, quality of life investigations of cancer patients have become a critical evaluation parameter in the cancer research and treatment evaluation programs. Assessment

of health related quality of life in cancer patients and adverse effects associated with cancer treatment may help to improve the quality of life of the patients. Studies have shown that baseline quality of life predicts survival in advanced breast cancer but not in early stage of disease**.** Quality of life data provided scientific evidence for taking clinical decision and conveyed helpful information concerning breast cancer patients' experiences during the course of the diagnosis, treatment, disease-free survival time, and recurrences. Otherwise finding patient centered solutions for evidence based selection of optimal treatments, psychosocial interventions, patient physician communications, allocation of resources, and indicating research priorities were impossible. It seems that more qualitative research is needed for a better understanding of the topic. In addition, issues related to the disease, its treatment side effects and symptoms, and sexual functioning should receive more attention when studying quality of life in breast cancer patients.

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