

# Assessment of Psychosocial Effect and Quality of Life in Breast Cancer Patients

Received: 06 February 2022

Revision Received 19 April 2022

Accepted: 22 April 2022

DOI: 10.56011/mind-mri-111-20227

\*Bhim Singh Rahi

\*\*Sunil Chaudhary

---

## Abstract

*Psychological factors and quality of life influence the breast cancer patient (Khan et al., 2010). The aim of this retrospective study is to evaluate the breast cancer patients' self-esteem, perceived social support, and quality of life. Sixty patients were taken in this, whose age was between twenty to sixty years. A self-esteem scale, social support questionnaire, and EORTC quality of life questionnaires were used to assess breast cancer patients. All statistical analyzes were completed via SPSS 16.0. The majority of the patients (93%) had high self-esteem and social support (90%). There was a significant association was found between self-esteem and social support (.001). Global health status and functional scores were high. Patients had increased complaints of fatigue, systemic therapy side-effect, and arm symptoms. Participants had suffered increased financial difficulties. It was observed that the sexual activity and sexual enjoyment of the participants had decreased. Breast cancer patients' self-esteem and social support were high. The overall quality of life in breast cancer patients appeared to be good. The participants had felt more tired, difficulty lifting their arms. Therefore, Higher Self-esteem and social support were strongly associated with a good overall quality of life.*

**Keywords:** Quality of life, Psycho-social outcomes, Modified Radical Mastectomy

---

## Introduction

Cancer is a group of different diseases and breast cancer is also one of the main sources of cancer deaths globally (Bray et al., 2018). Cancer is a dominant reason of death globally. In the year 2020, ten million people died as a result of cancer and 1 out of every 6 individuals died because of cancer. All over the countries, cancer of the breast is more common. Globally, twenty lakhs of females underwent treatment for breast malignancy in 2020, and six lakh seventy-five thousand females died from breast cancer disease. Breast cancer had been diagnosed in 7.8 million living women in the previous five years by the end of 2020. Globally, the age-specific incidence rate was found to be 25%, as well as the mortality rate was 13.3 percent per one lakh individuals. Breast cancer is also the commonest cancer in the Indian scenario. Breast cancer caused 1.3 million new cases and (851678) deaths in 2020 (Ferlay et al., 2021).

In Indian women, breast cancer is more common and accounts for fourteen percent of all cancer (Bray et al., 2018), (Ha & Cho, 2014). Modern medicine (chemotherapy, radiation, surgery, and hormonal

therapy) is used to treat women bearing from breast cancer.

Curran (1998) and Al-Ghazal (2000) explained that there was a high standard of living provided extra significance due to the fact, that patients' health is more complicated. Breast cancer in women Modified radical mastectomy (MRM) works primarily by controlling contamination. However, it completely alters the self-insight of the woman and the profound consequences on the mental status of the afflicted individuals.

Coopersmith (1981) stated that Self-esteem refers to our positive and negative self-perceptions. The self-concept is made up of numerous self-schemas, some aspects of the self are judged more favorably or clearly than others (Fleming, J. S., & Courtney, 1984.), (Pelham & Swann, 1989). There is a strong link between self-esteem and how people live their lives. Those who have a positive self-image are more likely to be a cheerful, healthful, success, and constructive. They are more likely to complete hard work, have good bed rest at night, and have less stress. They also believe in individuals and are less susceptible to group provocation. People who have low self-esteem, are

---

\*PhD. Scholar, Department of Radiotherapy and Radiation Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh, India.

\*\*Professor, Department of Radiotherapy and Radiation Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh, India.

too worried, unhappy, have negative thoughts about the future, and are more likely to fail (Brown & Smart, 1991).

Durkheim, (1984) conceptualized a concept of social support in the 19th century. He had made the link between diminishing social ties and an increase in suicide. It has evolved over time starting with the term “social ties” as used by Durkheim (Warfield & Rawls, 1997), (Vaux Alen, 1985). Sarason (1983) Social support gives one a feeling of the state of being loved, cared for, esteemed value, and belonging to a network of communications and mutual belongingness

High social support for a person is related to good mental adaptation and a lower risk of death from chronic medical illness. Social support alleviates the stress related to a cancer diagnosis and has a positive impact on one’s life, improving emotional goodness (George et al., 2013), (Roehl & Okun, 1984). According to Kumar (2014), social support has an extensive range of impressions on a person’s self-esteem. Saxton (2006) revealed that breast cancer patients experience physiological and mental distress as a reaction to their diagnosis and medication, and the long-term consequences for their prognosis.

Quality of life is defined as person’s opinion of their situation in lifecycle in relative to their aims, prospects, standards, and apprehensions in the perspective of the way of life and they live in value systems. (WHO). According to Ther & Alzabaidey (2012), the QOL is assessed by examining the patient’s social, physical, functional, and psychological goodness. (Davis, 2005) demonstrated that women with carcinoma breast cause body alteration and psychical alteration in her life, which have an impact on them, leading to somatic and psychical changes in their lives, affecting them both positively and negatively, as well as affecting their QOL. Leppert (2011) found that cancer patients are inextricably connected linked to their quality of life and being able to use their own capabilities, achieving their aims, and meet bodily and inner needs. Health-related quality of life is a multi-level concept that includes all the physiological, mental, and social factors affecting health status (Schipper, 1990).

Silva (2013) confirmed that increased self-esteem was detected in 55% of breast cancer and also found high self-esteem in married ladies, reconstruction of patients, resuming work, and not necessary extra carefulness.

Ban (2021) explained fear of progression, social support, and QOL. Findings disclosed the scholastic aspect and primary caregiver were associated with overall QOL. The quality of life was found to be favorably associated to social support; whereas fear of progression was invented to be negatively connected. Manot (2020) discovered the connection between anxiety and self-esteem on female patients. Self-worth and women education was significantly related and people of a high sense of self-worth were detected in modified radical mastectomy patients. The primary period of illness, support from friends and family was linked with a great chance of survival (Maunsell et al., 1995).

Denewer (2011) discovered a strong association between social care and hope. Hop could be predicted by social support. Ozkan (2008) stated that social support’s significance for practical periods in cancer of the breast was evaluated. They concluded that maximum help from friends was established in highly educated people. In working women, high buddies support and private personal care have been discovered. Consequently, favorable correlation was identified between social support, community activities, friend support, service actions, family, friend, and total social support.

Aprilianto (2021) demonstrated that social support found connected with family along with self-worth in females with neoadjuvant chemotherapy treatment. The findings revealed that support from family and friends as well as self-confidence were strongly correlated. Dubashi (2010) explored the overall health was highly correlated through somatic, communal, body perception, limb signs, and hand signs.

Damodar et al., (2013) evaluated the QOL of breast cancer patients. Physique utility, role, and future related aspects were invented to be significant. Tiredness, insomnia, hand problems, and dissatisfaction with alopecia were high. Body-related perception, sociological things, limbs signs, and arm signs all had a strong link with overall health. A strong relationship was found between the duration of cure. QOL directly affected age, disease stage, performance level, illness position, and follow-up dimensions. Fatigue and overall health were linked in a major way (Sharma & Purkayastha, 2017).

Insomnia, pain, lack of hunger, upset stomach, and economic problems were discovered to be strongly linked to overall health. Patients’ total QOL enhanced

as the chemotherapy period progressed (Singh et al., 2014).

Religion, stage, pain, spouse literacy, nodal position, and distance moved to a treatment centre were totally related to women's lives satisfaction (Pandey et al., 2005). In a study Gangane (2017) discovered that two factors have a negative association between an older woman and social affiliation. Non-Hindu women and housewives were positively related in all four QOL domains. Casualty, industry-related and office-working women had a progressive relationship through somatic features and mental factors. Divorced/widowed women had an inferior quality of life on communal and mental factors. Those who were less educated also had inferior overall well-being. High monthly incomes resulted in a good QOL for families.

Safae (2008) discovered a vital connection between overall health, working females, and illness duration. Employed women had improved QOL, and those who had the illness for less than four months their global QOL was inferior. The connection was established among QOL and other clinical aspects (such as metastasis of tumor, type of treatment, type of first treatment, comorbidity, disease period, and position of menopause) except for the inability to eat diarrhea. The overall well-being was negatively correlated with the whole symptomatology. Economic problems influenced life satisfaction.

Zou (2014) has also explored that the highest degree of optimism and social support was linked to better life quality. The findings revealed that there is a high quality of life in women is a sign of lowest degree of distress. A higher standard of living was linked to a lesser grade of affliction, a lower estimation of sickness, and a less give-in coping mechanism.

With new approaches to cancer treatment and management, emphasis is also being placed on the patients' quality of life and psychological aspects as it is also necessary for cancer patients to adjust themselves completely. Therefore, it is a major factor in evaluating the self-esteem, social support, and quality of life of breast cancer patients.

### Objectives

1. To evaluate patients with breast cancer's self-esteem and perceived social support.
2. To assess patients with breast cancer's quality of life.
3. To investigate the relationship between self-esteem, social support, and QOL in breast cancer patients.

### Material and Methods

**Sample:** Sixty breast cancer patients who had completed MRM and chemotherapy treatment were selected from Radiotherapy Outpatients Department (OPD). Participants were 20-60 years old at the time of the study and they were completed MRM and chemotherapy treatment. Participants were 20-60 years old at the time of the study and had completed MRM and chemotherapy treatment. The interview method was used to collect the data, and when patients responded, questionnaires were filled out by the researcher. The breast cancer patient gave written consent. This study is approved by the institutional ethics committee. Demographic variables age, family type, the native area have been also added. Patients were well informed about the study and written consent was obtained.

### Measures

**Self-esteem scale** evolved by way of Eagle (1973) and was adapted by Dr. R.N Singh and Dr. Ankita Shrivastava. The five-factor scale has the twenty items. There are 5 options, too much, too much, average, low, and too little. Positive items are rated on a pattern of 5, 4, 3, 2, 1, and negative items are scored in the opposite order. The highest possible score is a hundred, the lowest possible score is twenty and High scores range from 61 to 100. The split-half method at 0.86 and the test-retest coefficient of correlation were used to investigate reliability.

**Perceived social support** questionnaire was developed by Pollock and Harris, and translated by Ritu Nehra, Parmanand Kulhara, & Santosh (1987). The questionnaire is four-point scale and the scoring is to be reversed for positive items. This questionnaire reliability is high ( $r = .59$ ,  $p > .01$ ) and validity is .80, which is highly significant ( $p > .01$ ). High score social support represents a high level of social support and low score shows a lower level of social support.

The (EORTC) quality of life 30 C questionnaire and sub-scale **QLQ- BR23** is used worldwide to assess breast cancer patients' quality of life. This questionnaire contained 30 items that protected the physical, role, emotional, cognitive, and social functioning scales. The symptoms scales were fatigue, nausea and vomiting, and pain. The scales also consisted of six single items which were dyspnoea, insomnia, appetite loss, constipation, diarrhoea, and financial difficulties, and two items for global health status. All items had a score on 4 to 1, where 1 is 'not at all' and 4 is 'very much', except for global health status. The scoring of global

health status was 1 to 7, where 1 is ‘very poor’ and 7 is ‘excellent’. In the BR-23 module, 23 items have been included. The QOL BR 23 scale includes four functional scales: Body image, sexual functioning, sexual entertainment, future perspective are the functional scale and the symptom scale is - systemic medical side effects, breast symptoms, hand symptoms, and hair loss respectively. A higher level of functioning scales shows a healthy level of functioning. On the symptoms scales, high scores show the level of illness, and a high score on global health status represents high global health quality of life. Statistical analysis: The mean, standard deviation values were used to analyze the quantitative

data and Spearman correlation was done to see the difference between the variables.

**Results**

The average age of breast cancer patients was 44 years. The majority of participants (66%) were in the 31–50 years age group, 21.7 percent in the 51–70 years age group, and 11.7 percent in the under-30 year’s age group. A major proportion of patients belonged to rural areas (81.07%) and (18.03%) from urban areas. In terms of the family, 60 percent of participants were related to the joint family and rest were associated with the nuclear family. In addition, more than half of the patients were uneducated (55%).

**Table 1**  
**Mean, SD, and P-value of self-esteem and Social support**

Variable	Mean score	SD score	P value
Self-esteem	71.80	9.286	.001
Social Support	51.02	6.929	

In this study, high self-esteem was found in 93% of patients and high social support in 90% of patients. There was a significant p-value (.001) found between self-esteem and social support.

**Table 2**  
**Mean, SD, and P value between self -esteem, social support and quality of life**

Quality of life 30 scale	Mean score	SD score	P value score	
		Self-esteem	Social support	
Global health status	60.11	25.76	.013*	.035*
<b>Functioning scales</b>				
Physical	69.15	23.40	.047*	.025*
Role	84.22	24.73	.510	.004*
Emotional	67.31	32.44	.000*	.000*
Cognitive	85.03	26.66	.045*	.002*
Social Symptoms scales	66.35	33.11	.041*	.054
Fatigue	38.65	28.42	.083	.000*
Nausea and vomiting	16.64	30.53	.262	.437
Pain	26.51	30.46	.045*	.057
Dyspnoea	9.44	26.10	.043*	.006*
Insomnia	20.55	34.76	.173	.009*
Appetite loss	32.76	40.00	.989	.043*
Constipation	27.19	35.50	.182	.023*
Diarrhoea	8.76	24.00	.063	.264
Financial difficulty	67.77	44.66	.817	.627

Participants' global health status was high (60.11), and it was associated with self-esteem (.013) and social support (.035). Patients performed well on functional scales such as physical functioning mean score (69.15), role functioning score (84.22), emotional functioning score (67.31), cognitive functioning score (85.03), and social functioning score (66.35) respectively.

In symptoms, scales-fatigue (38.65) and financial difficulty (67.77) scores were increased. There was a significant association between functional scale-physical functioning (.047), emotional functioning (.000),

cognitive functioning (.045) social functioning (.041) and self-esteem. In symptoms scales, pain (.045) and dyspnoea (.043) were found significant with self-esteem. Physical functioning (.025), role functioning (.004), emotional functioning (.000), cognitive functioning (.002), and social support were found to have a significant relationship. In the symptoms scales, social support was significant with the following scales-fatigue (.000), dyspnoea (.006), insomnia (.009), and appetite loss (.043) respectively

**Table 3**  
**Mean, SD, and P value for Self-esteem, Social Support, and Quality of Life BR 23**

Quality of life 30 scale	Mean score	SD score	Self-esteem P value	Social support P value
<b>Functioning scales</b>				
Body image	55.49	30.47	.180	.244
Sexual functioning	84.76	28.96	.685	.776
Sexual enjoyment	83.73	34.65	.135	.809
Future perspective	64.56	39.68	.007*	.040*
<b>Symptoms scales</b>				
Systemic therapy side-effect	38.83	27.98	.030	.057
Breast symptoms	22.50	29.04	.000*	.105
Arm symptoms	33.63	32.58	.060	.022*
Upset by hair loss	29.72	45.00	.665	.704

The patient's mean score was high on these scales—Body images (55.49), sexual functioning (84.76), sexual enjoyment (83.73), and future perspective (64.56) sequentially. As well as systemic therapy side-effect (36.85), and arm symptoms 33.63) were increased, the rest of the scale scores were low. A significant association became located among future perspective (.007), systemic therapy side-effect (.030), breast signs and symptoms (.000), and self-esteem. Future perspective (.040) and arm symptoms (.022) are closely associated with social support.

### Discussion

The aim of the study was to investigate the impact of psychosocial factors and the quality of life in breast cancer patients. The mean age of patients was forty-four. A similar result was found by (Pandey et al., 2005). Higher self-esteem and higher social support were found and these factors were significantly associated with it. This finding is compatible with the study investigated by (Aprilianto et al., 2021), and they

found that strong positive correlation ( $p=.000$ ) found between these factors. This finding conflicted with (Winnubst et al., 1988), who found that negative self-esteem was strongly associated with social support in comparison to positive self-esteem. This study also found that social support and self-esteem predicted the level of depressive symptoms. In the current study, the mean Global health status was 60.11. This is supported by (Sharma & Purkayastha, 2017), who found high (62.5) global health status. Our study found lower global health status in comparison to a study done by (Dubashi et al., 2010) who was stated it 77.93 in younger patients. In the current study, functional scores—physical, role, emotional, cognitive, and social—were high, ranging from 66 to 85.3. A similar result was found by (Safae et al., 2008) and (Kannan K, Kokiwar PR, 2011) whose scores ranged from 57 to 90 which was high. Thus breast cancer patients' quality of life on functional scales. We observed that participants felt tiredness suffering from financial

problems. Patients had lower symptoms on other symptoms scales. The finding indicated that the body image of patients was good (55.49) and this is contradicted a study carried out by (Montazeri et al., 2008), who found high body image (82.3) in breast cancer patients. We found that patients suffer from systemic therapy side-effects and arm lifting problems. The reason behind this is that not all patients had completed chemotherapy treatment for a few days, so they had to face it. The next discovery was to evaluate the impact of psychosocial factors on the quality of life in patients with breast cancer.

The present findings revealed that higher self-esteem and higher social support are significantly associated with high scores of global health status, physical, role, emotional, cognitive, and future perspective respectively. Higher self-esteem was associated with higher social functioning. In symptoms scales- low scores of pain, dyspnoea, and breast symptoms were significantly related to higher self-esteem except for systemic therapy side effect which was high. There was higher social support significantly associated with lower scores of dyspnoea, insomnia, appetite loss, and breast symptom. A study, carried out by (Hsieh et al., 2020), on breast cancer survivors, found that higher levels of spiritual well-being and social support are more likely to perceive a better quality of life. So result indicated that a strong association was found between self-esteem, social support, and quality of life.

### Implication

Knowledge of changes in psychosocial status and quality of life due to breast cancer or its treatment will help in the management of patients' psychological problems and adjustment. In this study breast cancer patients had found high self-esteem, social support, and quality of life. It means patients fight with disease and their external environment support them. Due to the long treatment procedure patients still suffered from financial problem. This was a small sample size study and patients was completed their surgery and chemotherapy treatment. Another study can be performed to assess the quality of life at pre and post-chemotherapy treatment.

### Conclusion

In breast cancer, patients had found higher self-esteem and social support. There was a significant association found between self-esteem and social support. Global health status physical, role, emotional, cognitive, and future perspective were found significant with self-esteem and social support. In symptoms scales, patients were found a significant association between, pain, dyspnoea, therapy-related side effect, breast symptoms, and self-esteem. Social support is also significantly related to dyspnoea, insomnia, appetite loss, and breast symptoms. Patients reported fatigue, loss of appetite, therapy-related side effects, and arm-raising symptoms. Participants' sexual functioning was poor and they were suffer from financial problems. Breast cancer patients were psychosocially strong and their overall quality of life was good.

---

### References

- Al-Ghazal, S. K., Fallowfield, L., & Blamey, R. W. (2000). Comparison of psychological aspects and patient satisfaction following breast conserving surgery, simple mastectomy and breast reconstruction. *European Journal of Cancer*, 36(15), 1938–1943. [https://doi.org/10.1016/S0959-8049\(00\)00197-0](https://doi.org/10.1016/S0959-8049(00)00197-0)
- Aprilianto, E., Lumadi, S. A., & Handian, F. I. (2021). Family social support and the self-esteem of breast cancer patients undergoing neoadjuvant chemotherapy. *Journal of Public Health Research*, 10(2). <https://doi.org/10.4081/jphr.2021.2234>
- Ban, Y., Li, M., Yu, M., & Wu, H. (2021). The effect of fear of progression on quality of life among breast cancer patients/ : the mediating role of social support. *Health and Quality of Life Outcomes*, 1–9. <https://doi.org/10.1186/s12955-021-01816-7>
- Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2018). Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians*, 68(6), 394–424. <https://doi.org/10.3322/caac.21492>
- Brown, J. D., & Smart, S. A. (1991). *The Self and Social Conduct/ : Linking Self-Representations to Prosocial Behavior*. 60(3), 368–375.
- Coopersmith, S. (1981). *The antecedents of self-esteem*. Consulting Psychologists Press.
- Curran, D., van Dongen, J. P., Aaronson, N. K., Kiebert, G., Fentiman, I. S., Mignolet, F., & Bartelink, H. (1998). Quality of life of early-stage breast cancer patients treated with radical mastectomy or breast-conserving procedures: results of EORTC Trial 10801. The European Organization for Research and Treatment of Cancer (EORTC), Breast Cancer

## 60/ Assessment of Psychosocial Effect and Quality of Life...

- Co-operative Group (. *European Journal of Cancer (Oxford, England/ : 1990)*, 34(3), 307–314. [https://doi.org/10.1016/s0959-8049\(97\)00312-2](https://doi.org/10.1016/s0959-8049(97)00312-2)
- Damodar, G., Smitha, T., Gopinath, S., Vijayakumar, S., & Rao, Y. (2013). Assessment of quality of life in breast cancer patients at a tertiary care hospital. *Archives of Pharmacy Practice*, 4(1), 15. <https://doi.org/10.4103/2045-080x.111577>
- Davis, S. C. (2005). *Quality of life in women with breast cancer after surgical treatment*. University of South Carolina.
- Denewer, A., Farouk, O., Mostafa, W., & Elshamy, K. (2011). Social support and hope among egyptian women with breast cancer after mastectomy. *Breast Cancer: Basic and Clinical Research*, 5(1), 93–103. <https://doi.org/10.4137/BCBCR.S6655>
- Dubashi, B., Vidhubala, E., Cyriac, S., & Sagar, T. (2010). Quality of life among young women with breast cancer: Study from a tertiary cancer institute in south India. *Indian Journal of Cancer*, 47(2), 142–147. <https://doi.org/10.4103/0019-509X.63005>
- Durkheim, E. 1984. (n.d.). *The Division of Labor In Society*.
- Ferlay, J., Colombet, M., Soerjomataram, I., Parkin, D. M., Piñeros, M., Znaor, A., & Bray, F. (2021). Cancer statistics for the year 2020: An overview. *International Journal of Cancer*. <https://doi.org/10.1002/ijc.33588>
- Fleming, J. S., & Courtney, B. E. (1984). (n.d.). *citation*.
- Gangane, N., Khairkar, P., Hurtig, A. K., & Sebastián, M. S. (2017). Quality of life determinants in breast cancer patients in central rural India. *Asian Pacific Journal of Cancer Prevention*, 18(12), 3325–3332. <https://doi.org/10.22034/APJCP.2017.18.12.3325>
- George, L. K., Blazer, D. G., Hughes, D. C., & Fowler, N. (2013). *Social support and the outcome of major depression . Social Support and the Outcome of Major Depression*. 478–485. <https://doi.org/10.1192/bjp.154.4.478>
- Gomes, N. S., & da Silva, S. R. (2013). Evaluation of the self-esteem of women who had undergone breast cancer surgery. *Texto & Contexto Enferm*, 22(2), 509–516. <https://doi.org/10.1590/S0104-07072013000200029>
- Ha, E. H., & Cho, Y. K. (2014). The mediating effects of self-esteem and optimism on the relationship between quality of life and depressive symptoms of breast cancer patients. *Psychiatry Investigation*, 11(4), 437–445. <https://doi.org/10.4306/pi.2014.11.4.437>
- Hsieh, Y., Roh, S., & Lee, Y. (2020). *Spiritual Well-Being , Social Support , and Depression Among American Indian Women Cancer Survivors/ : The Mediating Effect of Perceived Quality of Life*. <https://doi.org/10.1177/1044389419853113>
- Kannan K, Kokiwar PR, J. G. (2011). Quality of life of women with breast cancer at a tertiary care hospitalKannan K, Kokiwar PR, J. G. (2011). Quality of life of women with breast cancer at a tertiary care hospital. *Int J Biol Med Res*, 2(4), 1003–1005.. *Int J Biol Med Res*, 2(4), 1003–1005.
- Khan, M. A., Bahadur, A. K., Agarwal, P. N., Sehgal, A., & Das, B. C. (2010). Psychosocial disorders in women undergoing postoperative radiation and chemotherapy for breast cancer in India. *Indian Journal of Cancer*, 47(3), 296–303. <https://doi.org/10.4103/0019-509X.64729>
- Kumar, R., Lal, R., & Bhuchar, V. (2014). Impact of social support in relation to self-esteem and aggression among adolescents. *International Journal of Scientific and Research Publications*, 4(12), 1–5.
- Leppert, W., Turska, A., Majkiewicz, M., Dziegielewska, S., Pankiewicz, P., & Mess, E. (2011). Quality of Life in Patients With Advanced Lung Cancer Treated at Home and at a Palliative Care Unit. *American Journal of Hospice and Palliative Medicine*®, 29(5), 379–387. <https://doi.org/10.1177/1049909111426135>
- Manot, S., Halder, S., Yektatalab, S., Ghanbari, E., Carolina, A., Prates, L., Freitas-Junior, R., Ferreira, M., Prates, O., De Faria Veloso, M., De Moura Barros, N., Mingorance, M. J., Arbinaga, F., Márquez, J. C., Bayo-Calero, J., Morales-Sánchez, L., Luque-Ribelles, V., Gil-Olarte, P., Ruiz-González, P., & Guil, R. (2020). Influence of Body Image in Women Undergoing Treatment for Breast Cancer Influência da imagem corporal em mulheres em tratamento contra câncer de mama. *International Archives of Health Sciences*, 35(4), 188–194. <https://doi.org/10.6018/analesps.35.2.336941>
- Maunsell, E., Brisson, J., & Deschênes, L. (1995). Social support and survival among women with breast cancer. *Cancer*, 76(4), 631–637. [https://doi.org/10.1002/1097-0142\(19950815\)76:4<631::AID-CNCR2820760414>3.0.CO;2-9](https://doi.org/10.1002/1097-0142(19950815)76:4<631::AID-CNCR2820760414>3.0.CO;2-9)
- Montazeri, A., Vahdaninia, M., Harirchi, I., Ebrahimi, M., Khaleghi, F., & Jarvandi, S. (2008). Quality of life in patients with breast cancer before and after diagnosis: An eighteen months follow-up study. *BMC Cancer*, 8, 1–6. <https://doi.org/10.1186/1471-2407-8-330>
- Ozkan, S., & Ogce, F. (2008). *Importance of Social Support for Functional Status in Breast Cancer Patients*. 9(84), 601–604.
- Pandey, M., Thomas, B. C., SreeRekha, P., Ramdas, K., Ratheesan, K., Parameswaran, S., Mathew, B. S., & Rajan, B. (2005). Quality of life determinants in women with breast cancer undergoing treatment with curative intent. *World Journal of Surgical Oncology*, 3, 1–7. <https://doi.org/10.1186/1477-7819-3-63>

- Pelham, B. W., & Swann, W. B. (1989). *From Self-Conceptions to Self-Worth/ : On the Sources and Structure of From Self-Conceptions to Self-Worth/ : On the Sources and Structure of Global Self-Esteem*. August 2016. <https://doi.org/10.1037//0022-3514.57.4.672>
- Roehl, J. E., & Okun, M. A. (1984). Depression symptoms among women reentering college: The role of negative life events and family social support. *Journal of College Student Personnel*.
- Safaei, A., Moghimi-Dehkordi, B., Zeighami, B., Tabatabaee, H. R., & Pourhoseingholi, M. A. (2008). Predictors of quality of life in breast cancer patients under chemotherapy. *Indian Journal of Cancer*, 45(3), 107–111. <https://doi.org/10.4103/0019-509X.44066>
- Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). *Assessing Social Support/ : The Social Support Questionnaire*. 44(1), 127–139.
- Saxton, J. M., Daley, A., Woodroffe, N., Coleman, R., Powers, H., Mutrie, N., Siddall, V., & Crank, H. (2006). Study protocol to investigate the effect of a lifestyle intervention on body weight, psychological health status and risk factors associated with disease recurrence in women recovering from breast cancer treatment [ISRCTN08045231]. *BMC Cancer*, 6, 1–9. <https://doi.org/10.1186/1471-2407-6-35>
- Schipper, H. (1990). Quality of Life. *Journal of Psychosocial Oncology*, 8(2–3), 171–185. [https://doi.org/10.1300/J077v08n02\\_09](https://doi.org/10.1300/J077v08n02_09)
- Sharma, N., & Purkayastha, A. (2017). Factors affecting quality of life in breast cancer patients: A descriptive and cross-sectional study with review of literature. *Journal of Mid-Life Health*, 8(2), 75–83. [https://doi.org/10.4103/jmh.JMH\\_15\\_17](https://doi.org/10.4103/jmh.JMH_15_17)
- Singh, H., Kaur, K., Singh Banipal, R., Singh, S., & Bala, R. (2014). Quality of life in cancer patients undergoing chemotherapy in a tertiary care center in Malwa region of Punjab. *Indian Journal of Palliative Care*, 20(2), 116–122. <https://doi.org/10.4103/0973-1075.132627>
- Ther, J. C. S., & Alzabaidey, F. J. (2012). *Cancer Science & Therapy Quality of Life Assessment for Patients with Breast Cancer Receiving Adjuvant Therapy*. 4(3), 51–55. <https://doi.org/10.4172/1948-5956>.
- Vaux Alen, D. H. (1985). *Support Network Characteristics Associated with Support Satisfaction and Perceived Support I*. 13(3), 245–268.
- Warfield, A., & Rawls, A. W. (1997). *Durkheim 's Epistemology/ : The Initial Critique , 1915-1924 All use subject to https://about.jstor.org/terms DURKHEIM 'S EPISTEMOLOGY/ : The Initial Critique , 1915-19*. 38(1), 111–145.
- WHOQOL: Measuring Quality of life. World Health Organization Retrieved 22 May 2020.
- Winnubst, J. A. M., Buunk, B. P., & Marcelissen, F. H. G. (1988). Social support and stress: Perspectives and processes. In *Handbook of life stress, cognition and health*. (pp. 511–528). John Wiley & Sons.
- Zou, Z., Hu, J., & McCoy, T. P. (2014). Quality of life among women with breast cancer living in Wuhan, China. *International Journal of Nursing Sciences*, 1(1), 79–88. <https://doi.org/10.1016/j.ijnss.2014.02.021>
- 

