



Review Article

Studying the Effect of Doing Yoga on the Quality of the Life of Women with Breast Cancer: A Review Article

Sadeqh Dehghanmehr¹, Saeideh Varasteh^{2*}, Maryam Koochakzai³, Safoora Nooraeen⁴ and Morteza Salarzai⁵

Abstract

Breast cancer is the second most common cancer in the world and the most common form of cancer among women; it accounts for 18% of all cancers in women. Yoga is helping cancer patients to perform their daily and normal activities, achieve relaxation, lower stress, and improve their quality of life. Although this technique cannot cure cancer, it can provide better feelings and better vision for suffering patients. The present research was conducted in order to study the effect of yoga techniques on the quality of life of women with breast cancer.

Method: The present study was conducted by searching keywords, such as yoga, quality of life, breast cancer, and cancer, in various Persian and English databases, including magiran, SID, Google scholars, science direct, and PubMed. Initial search provided several studies on the quality of life of patients with breast cancer and the effect of yoga on the quality of life of different patients, especially cancer patients; then studies that did not have much relevance to the subject matter of the present research were excluded and relative studies were included.

Findings: Yoga can increase the overall health of the body and, consequently, the quality of life of the individual through increasing the power of adaptation of psychic, nervous, immune, cognitive, automated nervous system modifications, physical and body stability and immune system modification. Relaxation and release of meditation helps to improve the health of the individual, leads to a better feeling in the individual, and thereby improves the quality of life in patients by stabilizing the autonomic nervous system and controlling emotions in yoga.

Conclusion: Given that none of the analyzed studies reported any complications for yoga and since yoga is a technique that can be easily applied anywhere, it is highly recommended to train women with breast cancer and other diseases how to implement this technique in order to improve their quality of life and increase their satisfaction.

Keywords

Yoga; Quality of the life; Women; Breast cancer

Introduction

Cancer has always been one of the most fundamental problems in human societies. Cancer is usually caused by functional impairment of regulatory mechanisms of cell growth and cell division, which resulting from genetic damage caused by chemicals, hormones, and sometimes by viruses [1]. The increasing trend of the incidence of cancer can be attributed to reasons such as the aging of the population in developed or developing societies and unhealthy behaviors such as smoking and the adoption of inappropriate ways of life [2]. The number of new cases of cancer that are detected each year is increasing rapidly. The number is expected to increase from 14.1 million in 2012 to more than 20 million by 2030. It must be mentioned that breast and prostate cancer are the most common cancers among women and men [3]. Breast cancer is the second most common cancer in the world and the most common form of cancer among women; it accounts for 18% of all cancers in women and, with a rate of 17.6%, functions as the important cause of death from cancer [4,5]. The probable incidence rate of cancer in the life of individual women is 1.12%; there are, also, evidences based on which the incidence and mortality rate of breast cancer in the world is increasing; consequently, focusing on providing required treatment for cancer is of paramount importance [6]. Breast cancer treatment involves surgery and radiation therapy and chemotherapy. Despite being useful for suppressing tumors and improving patients and providing precise prognosis of the disease, these treatments have various negative complications, such as nausea, vomiting, pain, and mental disorders such as anxiety and depression; for example, 25 to 60 percent of patients suffer from pain. These disorders affect the quality of life of the patients and all the aspects of their life greatly [5]. The increasing prevalence of chronic diseases, including cancer, calls for attention to the quality of life aspect of these patients. Assessing the quality of life of these patients is used to assess the chronic conditions of the disease, improve patient and doctor communication, and evaluate the effectiveness of various therapies, health policy-making, research, economic evaluation, and resource allocation. Therefore, paying close attention to the quality of life of cancer patients is always one of the main goals of care and treatment authorities and agencies [7]. The issue of quality of life is an important aspect the disregard of which can lead to frustration, lack of motivation for any effort, the reduction of social, economic, cultural and health activities, and, in a deeper dimension, affect the socioeconomic development of a country. In today's medical care, controlling chronic diseases is of particular importance. In this situation, the goals of health care are to optimize the quality of life [8,9]. Based on the results of a study conducted on Chinese women with breast cancer, disability, physical symptoms, anxiety, depression and ineffective perception were the most common symptoms which led to a marked decrease in the quality of life in these patients. Karimian et al. [10] stated that cancer changes the way of life of a person and creates many problems for him in all aspects of his physical, psychological, social, economic and family life. According to the results of Abdollahzadeh et al. [11] research cancer as a chronic disorder affects the health and quality of life of patients. Given several negative consequences, such as hair loss, nausea, vomiting, sexual dysfunction, and pain, cancer affects the quality of the life of patients and their families greatly. Nowadays,

*Corresponding author: Saeideh Varasteh, Faculty member, Community nursing research center, Zahedan, Iran, E-mail: mr.mortezasalar@gmail.com

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the coordination of the mind and body and the improvement of mental strength play an important role in the improvement of various symptoms of diseases, and yoga has been introduced as the most important technique leading to this important goal. Yoga refers to as a set of physical training exercises such as Asana condition, relaxation exercises, and Savasana relaxation, and Pranayama controlled perfunctory exercise [12]. Yoga can directly affect the central nervous system, cardio-respiratory function, blood flow and metabolism. Yoga exercises enhance musculoskeletal weaknesses, regulate and enhance endocrine metabolism, and coordinate and improve organ function [13]. Yoga is helping cancer patients to perform their daily and normal activities, achieve relaxation, lower stress, and improve their quality of life. Although this technique cannot cure cancer, it can provide better feelings and better vision for suffering patients [14]. The results of various studies have confirmed the effects of yoga techniques on the improvement of the quality of life of patients by improving motor status, regulating the quality of sleep, and reducing anxiety and depression [15,16] these techniques have been proven to have a positive effect on the quality of life of patients, leading to better satisfaction and better quality of life [17-19]. Given the low life quality of women with breast cancer and considering the confirmed positive effect of yoga techniques on the improvement of the quality of life of patients and, also easy applicability, non-invasiveness, and this technique's being complication-free, the present research was conducted in order to study the effect of yoga techniques on the quality of life of women with breast cancer.

Materials and Methods

The present study was conducted by searching keywords, such as yoga, quality of life, breast cancer, and cancer, in various Persian and English databases, including magiran, SID, Google scholars, science direct, and PubMed. Initial search provided several studies on the quality of life of patients with breast cancer and the effect of yoga on the quality of life of different patients, especially cancer patients; then studies that did not have much relevance to the subject matter of the present research were excluded and relative studies were included [20]. The present research was conducted in order to study the effect of yoga techniques on the quality of life of women with breast cancer.

Findings

There is a significant difference between the objective and the quality of life of cancer patients with healthy subjects and cancer patients turned out to have lower quality of life in all areas of life. As a chronic disease, cancer affects the process and quality of life, psychosocial function, and economic development of individuals in a strong manner [21]. Women with breast cancer experience many changes in various areas of life and they are not satisfied with their quality of life; quality of life is much lower in these patients in comparison with healthy subjects [3,22]. Women diagnosed with breast cancer experience anxiety, fear, fatigue, and poor quality of life during and after treatment [23]. Chemotherapy for breast cancer can put the most significant impact on the quality of life of patients and failure to properly control these complications can exacerbate the negative effects on patients' quality of life [24]. Yoga can increase the overall health of the body and, consequently, the quality of life of the individual through increasing the power of adaptation of psychic, nervous, immune, cognitive, automated nervous system modifications, physical and body stability and immune system modification [18]. Relaxation and release of meditation helps to improve the health of the individual, leads to a better feeling in the

individual, and thereby improves the quality of life in patients by stabilizing the autonomic nervous system and controlling emotions in yoga [25]. Various studies have demonstrated the effect of yoga in helping treat diseases such as low back pain, hypertension, types of cancer, insomnia and its effects on heart rate reduction, body mass index, and blood pressure and lipids [26]. Yoga has a positive and significant effect on the self-efficacy of individual [27] it is a low-cost sport, applicable to all ages, especially the elderly, with the least facilities. [28] The results of the study showed that yoga exercises improved the quality of life in patients with multiple sclerosis [MS] by improving their perceptual, social, and sexual activities [18]. Another study showed that doing yoga techniques can improve general health and life expectancy in patients with multiple sclerosis [20]. Based on the results of another study, yoga exercises improved quality of life in diabetic patients, showing a stronger impact on the overall quality of life of patients in comparison with walking [29]. Anxiety and depression are the most common psychological problems in cancer patients. Fear and anxiety due to cancer diagnosis, invasive therapies, secondary physical and sexual problems caused by surgery and radiotherapy and chemotherapy complications are the most common issues that cause these symptoms. Studies have reported the prevalence rate of these complications to vary from 16% to 65%. Anxiety and depression are among the most important factors that reduce the quality of life of cancer patients. The results indicate that yoga resulted in a reduction in the mean score of the hidden anxiety, apparent anxiety, and overall anxiety score in cancer patients. Also, various studies have confirmed the effect of yoga on reducing anxiety and depression in patients and thus improving their quality of life [12,30,31]. Yoga techniques, which improve the quality of sleep in patients, lead to a significant increase in the quality of life [32]. Women with breast cancer experience low quality of life and a high level of pain and discomfort and other accompanying symptoms and illnesses. Today, exercises such as yoga are effective in improving symptoms in cancer patients and subsequently improving the quality of life of these patients. A study showed that yoga exercises improved the pain associated with metastasis in breast cancer and also decreased fatigue in 50% of patients [19].

Discussion

Due to influencing various dimensions of quality of life, including physical, mental, and social well-being, breast cancer has recently become quite an important issue. Yoga has been considered as a non-clinical and useful method for accelerating post-operative healing and reducing radiation-induced complications as well as improving psychological complications that can increase the quality of life of patients with breast cancer [33]. Muscle weakness and reduction of upper limb and edema range are the most important post-mastectomy complications in women with breast cancer, affecting the quality of life of these patients in different aspects. Based on the results of a two-week postoperative yoga study consisting of 15 sessions, this sport was reported to reduce the complications of mastectomy surgery in women with breast cancer. Yoga exercises led to an increase in the upper extremity movement and physical self-concept and decreased edema in these patients. Other studies have also confirmed the effect of yoga on improving motor activity [34,35]. The results of this study showed that yoga can reduce the edema and improve the range of motion indirectly by improving the quality of life of patients with breast cancer. Yoga exercises have been effective in improving physical self-perception, physical appearance and physical self-esteem components of women [36]. Since women

with breast cancer develop mental impairment after mastectomy surgery, their physical self-image changes and this is one of the most important factors affecting their quality of life [34]. Therefore, yoga improves the quality of life of breast cancer women by improving their mental image after mastectomy. Another study showed that yoga reduced the complications of mastectomy surgery [reducing the range of joints, pain and edema] to improve the quality of life of women with breast cancer. Modal et al. [6] studies the effect of yoga on the quality of life of patients with breast cancer, the results of which indicated significant improvement in emotional satisfaction in regard with yoga exercises. However, another study rejected the effect of yoga exercises on the quality of life of patients with cancer, stating that yoga had no effect on the quality of life of patients with cancer; the reason for such a finding might be the lack of proper use of yoga techniques and sample size [37]. In a study in 2013, it was concluded that yoga techniques improved the symptoms of chemotherapy such as nausea, vomiting and pain, and improved quality of life for patients with breast cancer. The overall quality of life score for cancer patients ranged from 49.6 to 81.7, indicating a significant increase in their quality of life [14]. The results of Yazdani's research confirmed the effect of yoga on the quality of life symptoms of patients with breast cancer under radiotherapy. In this study, the overall score of patients' quality of life increased from 50.8, before intervention, to 81.78, after intervention; yoga techniques reduced fatigue, nausea, vomiting, pain, side effects of treatment and symptoms of breast cancer, and improved appetite for patients with breast cancer [33]. Based on the results of Vardar's study, conducted in 2015, yoga exercises improved the quality of life in patients with breast cancer, and also had a great effect in reducing fatigue and improving muscle strength in these patients [38]. A study conducted in 2012 examined the impact of yoga exercises on newly diagnosed breast cancer women; yoga exercises resulted in improved emotional well-being, mental health and stress relief in patients. 62% of the patients expressed a considerable decrease in muscle tension and enhanced positive feelings; 69% of the patients experienced reduced their stress levels, and 85% felt relaxed. The results of this study confirm the effect of yoga techniques on improving the quality of life of women with congestive heart failure [23]. The results of a study conducted in 2007 indicated that yoga exercises lead to improved social performance and emotional mood in breast cancer patients, thereby improving the overall quality of life in these patients [39]. Based on the findings of another study, doing yoga exercise twice a week for five weeks led to a general increase in quality of life and functional status and reduced physical symptoms in women with breast cancer after surgery; 59% of patients experienced positive changes in physical activity [40]. Another study investigated the effect of yoga techniques on the various indices of life in women with breast cancer; based on the results of this research, yoga had the greatest impact on the overall quality of life and emotional well-being. This study introduced yoga as a beneficial agent in the rehab and well-being of life in the women with breast cancer [41].

Conclusion

The results of the majority of research analyzed in the present review study confirmed the effect of yoga on improving the quality of life of patients with breast cancer [39-41] there was only one study rejecting the effect of yoga on the quality of life of patients [37]. Given that none of the analyzed studies reported any complications for yoga and since yoga is a technique that can be easily applied anywhere, it is highly recommended to train women with breast cancer and other diseases how to implement this technique in order to improve their quality of life and increase their satisfaction.

References

1. Zamanian AM, Jalilian AF (2013) Early Detection of Cancer and Proteomics. *Sjimu* 21: 112-122.
2. Saffari M, Zeidi IM, Pakpour AH (2012) Role of Religious Beliefs in Quality of Life of Patients with Cancer. *Hakim Health Sys Res* 15: 243-250.
3. Rincon E, Guerra MF, Romero RO, Zubieta DE (2017) Mobile Phone Apps for Quality of Life and Well-Being Assessment in Breast and Prostate Cancer Patients: Systematic Review. *JMIR Mhealth Uhealth* 5: e187.
4. Muela HM, López GE (2017) Protocol for the BRECAR study: a prospective cohort follow-up on the impact of breast reconstruction timing on health-related quality of life in women with breast cancer. *BMJ Open* 7: e018108.
5. Abu Farha NH, Khatib MT, Salameh H, Zyoud SH (2017) Cancer-related post-treatment pain and its impact on health-related quality of life in breast cancer patients: a cross sectional study in Palestine. *Asia Pac Fam Med* 16: 7.
6. Ghorbani M, Sokhangoeei Y (2012) The effect of two Pilates and Yoga exercises on the range of motion, edema and upper extremity pain in women with Breast cancer after breast cancer surgery. *Iran J Breast Dis* 5: 84-92.
7. Safari MH, Forozy AZM, Targari B, Jahani Y (2017) Relationship between quality of life and spiritual needs of cancer patients. *Teb* 25: 199-212.
8. Ahari SS, Arshi S, Iranparvar M, Amani F, Siahpoosh H (2008) The Effect of Complications of Type II Diabetes on Patients' Quality of Life. *J Ardabil Univ Med Sci* 8: 394-402.
9. Pour SJ, Jafari M, Asgar GM, Dardashti DH (2013) Effect of educational program on quality of life in diabetic patients. *Jha* 16: 26-36.
10. Tang L, Fritzsche K, Leonhart R (2017) Emotional distress and dysfunctional illness perception are associated with low mental and physical quality of life in Chinese breast cancer patients. *Health Qual Life Outcomes* 15: 231.
11. Molaei Z, Rezaei AS, Khalkhali HR (2017) The effect of hope-based group therapy on the cancer patients' quality of life based on Snyder's Hope Theory. *J Urmia Nurs Midwifery Fac* 15: 404-414.
12. Mousavi A, Mousavi M (2014) Effects of Yoga techniques on reducing mental symptoms of immobility syndrome in elderly women. *J Rehab Med* 2: 37-45.
13. Mirhosseini M, Esfarjani F, Marandi M, Khalilzadeh S, Mirhosseini H (2014) The Effect of Yoga Exercise on Parameters of Type II Diabetes. *JSSU* 22: 880-891.
14. Yazdani F (2013) Effect of yoga on quality of life symptomatic scale for patients with breast cancer undergoing chemotherapy. *J Breast Dis* 6: 57-66.
15. Friend IKH, Taheri M, Sahat al-aslami A (2014) Comparison of the Effects of Aerobic Exercise on Water and Yoga on Memory and Dynamic Balance in Older Men. *Growth and learning of motor-sport (movement)* 6: 463-473.
16. Abadi GHB, Saadat M (2010) The study of the effect of yoga rhythmic motions on the social interactions of mentally retarded children (boys) in elementary school in Sangan, Khaf. *Educational and psychological studies* 11: 171-181.
17. Artist MM, Jamhari F, Hussein SA (2013) The effect of yoga training on the psychological well-being and happiness of male employees in the wake of retirement of a large industrial company in Ahvaz city. *New discoveries in psychologies* 8: 23-38.
18. Dolatabadi N Sh, Nourian Kh (2012) The Effect of Yoga Techniques on Quality of Life in Women with Multiple Sclerosis. *HMJ* 16: 143-150.
19. Carson JW, Carson KM, Olsen MK, Sanders L, Porter LS (2017) Mindful Yoga for women with metastatic breast cancer: design of a randomized controlled trial. *BMC Complement Altern Med* 17: 153.
20. Doulatabad NS, Nouryan K, Malekzadeh G, Ghaem H, Roozitalab M, et al. (2011) Effect of Yoga Exercise on General Health Status (GHS) and Sense of Life in Patients with Multiple Sclerosis. *Armaghane danesh* 16: 245-253.
21. Issazadegan A, Sepehrianazar F, Matlabi M (2016) Comparing the purpose of life and quality of life, in cancerous patients and healthy individuals. *J Urmia Nurs Midwifery Fac* 13: 1097-1103.
22. Sadoughi M, Mehrzad V, Mohammad Salehi Z (2017) The Relationship between Psychological Capital and Quality of Life among Patients with Breast Cancer. *RJMS* 24: 111-119.

23. Pruthi S, Stan DL, Jenkins SM (2012) A Randomized Controlled Pilot Study Assessing Feasibility and Impact of Yoga Practice on Quality of Life, Mood, and Perceived Stress in Women With Newly Diagnosed Breast Cancer. *Glob Adv Health Med* 1: 30-35.
24. Mikaili P (2013) Evaluation of the effect of chemotherapy on functional scales of quality of life of patient with breast cancer. *J Breast Dis* 4: 26-34.
25. Siahpour T, Nikbakht M, Rahimi E, Rabiee M (2013) The Effect of 8 weeks aerobic exercise and yoga on primary dismenorrhea. *Armaghane danesh* 18: 475-483.
26. Zorofi F, Hojjati Z, Elmiyeh AR (2014) Effect of Yoga Training on BMLand Physiological Variables in Women with Fasting. *J Guilan Uni Med Sci* 22: 73-82.
27. Nasab AK, Esmaeilzadeh M, Sefidi SS (2013) Effect of aerobic and yoga aerobics on self-efficacy of female employees of Sabzevar University of Medical Sciences in 2013. *Quarterly Journal of Sabzevar University of Medical Sciences (Secrets)* 20: 590-596.
28. Marandi M, Kahrizansangi G Gh (2012) Effect of a Yoga Exercise on Blood Pressure, Plasma Insulin Level and Blood Glucose in Patients with Type 2 Diabetes. *Jennetashapir* 3: 45-54.
29. Fallah YL, Azimi H, Sadeghi T (2014) Comparison of the Effects of Two Types of Exercise on Blood Glucose Levels and Anti-diabetics Tablets Used by People with Type II Diabetes. *IJN* 27: 79-87.
30. Rezaei K, Ghaneei R (2014) The Effect of Yoga on Anxiety in Patients with Breast Cancer Under Chemotherapy. *Jentashapir J Health Res* 1: 41-51.
31. Nourbakhsh M, Alijani A, Purdiba P (2010) Comparison of a program of walking, yoga and herbal use of Hyperan is a depression in non-athlete middle aged women. *Sci Sports* 2: 71-93.
32. Kiani R, Ahmadi P, Jaafari S (2014) The effectiveness of yoga-based mind-awareness in improving the symptoms of secondary insomnia. *J Adv Psych Res* 9: 119-134.
33. Yazdani F (2015) The Effects of Yoga on Symptom Scales Quality of Life in Breast Cancer Patients Undergoing Radiotherapy. *J Breast Dis* 7: 33-42.
34. Ghorbani M, Sokhangooei Y (2013) The effect of three methods of training Pylalates, yoga and active activation on upper limb motion range and Physical self-concept in women with breast cancer after mastectomy. 4: 189-201.
35. Irandoust K, Taheri M (2016) The Impact of Yoga and Pilates Exercises on Older Adults. *Salmmand* 11: 152-161.
36. Javadian N (2008) The effects of aerobic and Yoga training modes on physical self-description components of female university students. *Principles of Mental Health* 10: 221-230.
37. Rahnema N, Eetemadifar M (2011) The effect of yoga exercises on selected factors for the physical fitness of patients with MS. *Olympic quarterly* 19: 95-106.
38. Yağlı VN, Şener G, Arıkan H (2015) Do yoga and aerobic exercise training have impact on functional capacity, fatigue, peripheral muscle strength, and quality of life in breast cancer survivors. *Integr Cancer Ther* 14: 125-132.
39. Moadel AB, Shah C (2007) Randomized controlled trial of yoga among a multiethnic sample of breast cancer patients: effects on quality of life. *J Clin Oncol* 25: 4387-4395.
40. Siedentopf F, Utz-Billing I, Gairing S (2013) Yoga for Patients with Early Breast Cancer and its Impact on Quality of Life - a Randomized Controlled Trial. *Geburtshilfe Frauenheilkd* 73: 311-317.
41. Harder H, Parlour L, Jenkins V (2012) Randomised controlled trials of yoga interventions for women with breast cancer: a systematic literature review. *Support Care Cancer* 20: 3055-3064

Author Affiliations

Top

¹Student, Student Research Committee, Nursing and Midwifery School, Zabol University of Medical Sciences, Zabol, Iran

²Community Nursing research Center, Zahedan, Iran

³Department of midwifery, Faculty of Nursing and Midwifery, Zabol University of Medical Sciences, Zabol, Iran

⁴Nursing and Midwifery School, Zabol University of Medical Sciences, Zabol, Iran

⁵Student Research Committee, Zabol University of Medical Sciences, Zabol, Iran

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