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Assessment of Lifestyle Among Women with Breast Cancer

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Abstract

Introduction: Breast cancer continues to pose a significant global health concern, impacting millions of women worldwide. Despite progress in early detection and treatment strategies improving survival rates, the disease profoundly affects various lifestyle aspects and overall well-being.

Methodology: This study utilized a descriptive research design with an evaluative approach. A convenience sample of 100 women diagnosed with breast cancer was recruited from a tertiary care hospital in Bangalore. Data were collected through a structured questionnaire assessing five key lifestyle dimensions: physical, role, emotional, cognitive, and social functioning, categorized into low, moderate, and high levels. Participants received clear instructions on completing the questionnaire, provided informed consent, and were assured anonymity. Participation was entirely voluntary, with the freedom to withdraw at any stage.

Results: The study revealed that sleep disturbances were prevalent among most participants. Additionally, significant proportions of women reported concerns related to body weight gain (70%), social and community engagement (70%), sexual health issues (60%), psychological distress (60%), dietary habits (56%), physical activity (50%), and smoking (45%). Moreover, 43% of participants had a history of using birth control pills and hormone replacement therapy.

Conclusion: The findings underscore diverse lifestyle-related challenges, spanning physical, emotional, and social domains. Addressing these concerns through targeted interventions is essential to enhancing their overall quality of life.

Keywords: Lifestyle assessment, breast cancer, women, health impact

Introduction

Breast cancer accounts for approximately 12.5% of all new cancer cases annually. Despite advances in medical technology that have enhanced survival rates, breast cancer continues to be a leading cause of cancer-related mortality, especially in areas with limited access to early detection and treatment options [1]. The disease's complexity arises from its multifactorial causes and potential for recurrence, necessitating ongoing research and prevention strategies.

A genetic predisposition significantly influences breast cancer risk, with affected individuals facing nearly twice the likelihood of developing it. Approximately 15% of breast cancer cases are linked to hereditary factors, emphasizing the importance of family history in assessing risk [2]. However, while genetics play a crucial role, environmental and lifestyle factors are also critical in disease onset and progression.

Emerging research indicates that breast cancer risk can be mitigated through lifestyle modification. Organizations such as the World Cancer Research Fund advocate for adopting a healthy lifestyle to

minimize recurrence rates and improve overall health among breast cancer survivors. Their key recommendations include engaging in consistent physical activity, following a diet high in fibre and low in saturated fats, and maintaining a healthy body weight [3].

Obesity, particularly among postmenopausal women, is strongly associated with increased breast cancer risk due to excess fat tissue, which may promote hormone-receptor-positive breast cancer growth. Additionally, obesity contributes to higher insulin resistance and chronic inflammation, both recognized as contributing factors to cancer development. Research indicates that women with elevated insulin levels, often seen in overweight individuals, are more likely to develop various cancers, including breast cancer [4].

Beyond obesity, lifestyle choices such as smoking and poor dietary habits, including the consumption of processed and high-fat foods, have been linked to disease progression. Conversely, a diet rich in fruits, vegetables, and whole grains provides protective benefits by delivering essential antioxidants and reducing inflammation [5].

Physical activity reduces breast cancer risk by boosting immune function, regulating hormones, and reducing inflammation, while a sedentary lifestyle increases the likelihood of developing cancer. Studies show that women who exercise regularly have a lower incidence of breast cancer. Additionally, the use of hormone replacement therapy (HRT) and certain contraceptives can raise breast cancer risk, as prolonged exposure to synthetic hormones may promote the growth of hormone-sensitive breast cancer cells. Therefore, healthcare providers stress the careful evaluation of HRT and contraceptive use, especially for women at higher risk [6,7].

Psychological well-being is another critical factor in breast cancer prevention and management. Chronic stress and emotional distress have been linked to weakened immune function, potentially influencing cancer progression. Women undergoing breast cancer treatment often face significant psychological challenges that affect their quality of life. Implementing stress management strategies, seeking psychological counselling, and fostering strong social support networks are essential for enhancing the well-being of breast cancer patients [8].

Given the intricate relationship between preventive strategies and healthy behaviors, they are vital to reducing the disease burden. Lifestyle modifications including maintaining a healthy weight, consuming a nutrient-dense diet, engaging in regular physical activity, avoiding tobacco and excessive alcohol consumption, and managing stress can collectively improve health outcomes for individuals at risk of or diagnosed with breast cancer [9].

This study aims to evaluate the influence of lifestyle factors on women diagnosed with breast cancer. By examining how various lifestyle choices affect breast cancer risk and survivorship, this research seeks to provide valuable insights into preventive measures and interventions that can improve outcomes for affected individuals.

Materials & Methods

This descriptive study involved 100 women with breast cancer, selected through convenience sampling from the Oncology Department at Rajeshwari Medical College, Bangalore, between December 2023 and June 2024. A structured questionnaire assessed nine lifestyle factors, including physical activity, diet, sleep, smoking, social participation, sexual health, weight changes, use of birth control and hormone therapy, and stress, categorized into low, moderate, and high levels. Participants provided informed consent, were assured confidentiality, and had the right to withdraw at any time. The questionnaire's content was validated by ten experts, and its reliability was confirmed with a Cronbach’s alpha of 0.92. Descriptive

statistics, such as frequency and percentage distributions, were used for data analysis.

Results

The results of this study provide insight into the demographic characteristics of women diagnosed with breast cancer. A considerable percentage of participants were within the age range of 50–59 years (32%), while 36% had attained a high school education. Additionally, more than half (55%) were employed in government sectors. The majority of the participants (68%) lived in urban areas, and 65% were categorized as having a low socioeconomic status.

Table 1: Sociodemographic Characteristics of Participants

Characteristic	Percentage (%)
Age (Years)	
<30	4.0
30–39	13.0
40–49	30.0
50–59	32.0
60–69	13.0

Beyond sociodemographic characteristics, the study also explored various lifestyle factors. Findings indicated that a substantial proportion of women experienced sleep disturbances, weight gain (70%), decreased social and community involvement (70%), sexual health concerns (60%), elevated stress levels (60%), dietary issues (56%), insufficient physical activity (50%), and smoking habits (45%). Furthermore, 43% of participants reported the use of birth control pills and hormone replacement therapy.

Table 2: Lifestyle Assessment of Women with Breast Cancer

Lifestyle Domains	Low (%)	Moderate (%)	High (%)
Physical Activity	50 (50%)	30 (30%)	20 (20%)
Diet	56 (56%)	24 (24%)	20 (20%)
Sleep	90 (90%)	10 (10%)	0 (0%)
Smoking	20 (20%)	35 (35%)	45 (45%)
Social & Community Activity	70 (70%)	25 (25%)	5 (5%)
Sexual Health	60 (60%)	20 (20%)	20 (20%)
Body Weight Gain	75 (75%)	25 (25%)	0 (0%)
Birth Control & HRT	52 (52%)	5 (5%)	43 (43%)
Stress	15 (15%)	25 (25%)	60 (60%)

The analysis of lifestyle domains among women diagnosed with breast cancer revealed that a majority exhibited unhealthy lifestyle patterns that may adversely influence disease progression and recovery. Half of the participants had low physical activity levels and 56% followed poor dietary habits, while an alarming 90% reported inadequate sleep quality. Smoking prevalence was high in 45% of cases, and 70% showed low engagement in social and community activities, reflecting social isolation and emotional strain. Additionally, 60% reported poor sexual health, and 75% experienced excess body weight gain, which is a known risk factor for cancer recurrence. A considerable proportion (43%) had a high-risk history of hormonal exposure through birth control or hormone replacement therapy. Most strikingly, 60% of the women experienced high stress levels, indicating significant psychological distress associated with cancer diagnosis and treatment. Overall, these findings highlight the predominance of sedentary lifestyle, poor nutrition, obesity, stress, and inadequate psychosocial support among breast cancer patients, emphasizing

the urgent need for comprehensive lifestyle interventions focusing on physical activity, balanced diet, weight management, stress reduction, and emotional well-being to improve treatment outcomes and enhance quality of life.

Discussion

The present study demonstrates that the majority of women diagnosed with breast cancer were middle-aged or older, possessed moderate levels of education, were employed, and predominantly resided in urban areas while experiencing financial constraints. These demographic patterns are consistent with findings reported in earlier studies, which emphasize the influence of sociodemographic factors on breast cancer prevalence and outcomes. For instance, Dalton et al. reported a mean age of 62.8 ± 8.0 years among breast cancer patients, with most participants having at least 12 years of education and living in urban settings (7). Similarly, a cross-sectional study involving 520 women found that nearly half of the participants were aged 35–40 years, over half had completed tertiary education, and a significant proportion belonged to lower socioeconomic strata (8). In contrast, a retrospective analysis of 1,196 patients showed a younger age distribution, with 31.5% aged between 26 and 35 years and a predominance of women with school-level education who were unemployed or homemakers (9). Furthermore, Ali et al. identified the highest prevalence of breast cancer among women aged 55–59 years, reinforcing age as a critical determinant in disease occurrence (6). Collectively, these findings support the established association between breast cancer and sociodemographic variables such as age, education, employment status, and socioeconomic conditions.

In addition to demographic characteristics, this study highlights several lifestyle-related challenges faced by women with breast cancer. Sleep disturbances emerged as the most frequently reported problem, followed by weight gain and reduced social interaction, both affecting approximately 70% of participants. Concerns related to sexual health and psychological stress were reported by 60% of women, while dietary difficulties and insufficient physical activity were noted in more than half of the study population. A substantial proportion of participants also reported smoking, further compounding health risks. These findings underscore the multifaceted impact of breast cancer on physical, psychological, and social well-being.

The observed lifestyle challenges align closely with existing literature that identifies modifiable behavioral factors—such as diet, physical inactivity, obesity, smoking, hormonal therapy, and reproductive history—as significant contributors to breast cancer risk, disease progression, and survivorship outcomes. Studies conducted in the Middle East and other regions have consistently demonstrated that unhealthy dietary habits, sedentary lifestyles, and obesity are associated with increased breast cancer incidence and mortality (8,9). Global health authorities, including the World Cancer Research Fund, strongly advocate for lifestyle modifications to reduce recurrence risk and improve quality of life among breast cancer survivors. These recommendations emphasize maintaining a healthy body weight, consuming a diet rich in fiber and low in saturated fats, engaging in regular physical activity, and avoiding tobacco use.

Overall, the findings of this study reinforce the critical role of sociodemographic and lifestyle factors in shaping breast cancer experiences and outcomes. Addressing these factors through targeted public health interventions, patient education, and supportive care strategies may contribute significantly to improving disease management, enhancing quality of life, and reducing long-term morbidity among women with breast cancer.

Conclusion

The results of this study clearly illustrate that breast cancer profoundly impacts various aspects of a woman's daily life. It disrupts sleep patterns, leads to unintended weight gain, diminishes social

interactions, affects sexual health, increases stress, and alters dietary habits and physical activity. These disruptions not only affect a woman's physical health but also contribute significantly to emotional and psychological distress. To improve the quality of life for women living with breast cancer, interventions targeting these specific issues are crucial. Programs designed to manage sleep disturbances, strategies to control weight gain, and initiatives that encourage social interaction through support groups can offer significant benefits. Additionally, addressing sexual health concerns with counseling and medical interventions, incorporating stress-reducing techniques like mindfulness and therapy, and promoting healthy eating habits can contribute to overall well-being. Regular physical activity, tailored to the individual's needs and abilities, should also be encouraged to help maintain physical strength, combat fatigue, and improve mental health. By adopting a comprehensive, patient-focused approach, healthcare professionals can better support breast cancer patients in overcoming these challenges, leading to improved physical and emotional resilience.

Recommendations

Based on the study's findings, the following recommendations are proposed:

1. Regular **Lifestyle Monitoring and Screening:** Routine assessments should be carried out to track lifestyle factors in women diagnosed with breast cancer.
2. **Programs for Lifestyle Improvement:** Educational programs should be designed and implemented to promote healthier lifestyle choices among breast cancer patients.
3. **Supportive Social Initiatives:** Community-based support groups should be established to assist women in maintaining healthy lifestyles and coping with the psychological challenges of breast cancer.
4. **Expanding Research with Larger Sample Sizes:** Future studies should involve larger and more diverse samples to enhance the generalizability of the findings and provide further insights.

Conflict of Interest: Nil

Reference

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