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Quality of Life of Patients with Breast Cancer Receiving Chemotherapy at Ayder Comprehensive Specialized Hospital, Tigray, Ethiopia: A Descriptive Qualitative Study

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Abstract

Background: Health-related quality of life is crucial for managing chronic conditions like breast cancer. However, data on quality of life among patients diagnosed with breast cancer in Ethiopia, especially in the Tigray region, is limited. This study explored health related quality of life in patients diagnosed with breast cancer undergoing chemotherapy at Ayder Comprehensive Specialized Hospital. Methodology: A deductive qualitative study was conducted from February to March 2020 using in-depth interviews with 18 patients diagnosed with breast cancer. Interviews, guided by quality of life themes, were recorded, transcribed, translated from Tigrigna to English, and analyzed using Open Code software. Coding was informed by literature and refined collaboratively. Results: Patients reported major physical limitations and chemotherapy side effects like hair loss, fatigue, appetite loss, and menstrual disturbances. Emotional well-being was deeply impacted by fear and anxiety, though counseling helped improve stability. Social isolation and financial hardship were also significant, further affecting quality of life. Conclusion and Recommendations: Chemotherapy negatively impacts Health-related quality of life across physical, emotional, and social dimensions. Emotional support and peer counseling improve coping. The study recommends expanding psychosocial services, financial assistance, and insurance coverage. Future research should examine long-term psychological and economic effects to enhance patient care strategies.

Keywords: Breast cancer, qualitative, Symptom Experience, Emotional Wellbeing, Treatment Impact

Introduction

Health-related quality of life (HRQOL) is defined as the subjective perception of how a disease and its treatment impact a patient's health status (Michelson & Brandberg, n.d). It reflects an individual's view of their position in life, considering the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns. This definition acknowledges that quality of life is a subjective concept, shaped by an individual's personal judgment (Van der Steeg & Roukema, 2004). Over the past decade, HRQOL has become a key outcome measure in the treatment of cancer patients. It is a multidimensional construct that encompasses perceptions of both the positive and negative aspects of physical, emotional, social, and cognitive functions. Additionally, it includes the negative effects of somatic discomfort and other symptoms caused by the disease or its treatment (Grimison, 2007). It is considered as one of the main determinants of treatment success in modern oncology (Corle et al., 2001; Stewart, 2003). Quality of life has become a widely accepted measure of outcome in the management of cancer patients, playing a key role in their overall care (K., 2006; Grimison, 2007; Perry et al., 2007). This is in part due to the rising number of breast cancer cases. Global statistics indicate that breast cancer is one of the most frequently diagnosed cancers worldwide, affecting 2.1 million women annually (World Health Organization, 2018), which constitutes 24.2% of all cancer diagnoses (International Agency for Research on Cancer, 2018). Additionally, it is the leading cause of cancer-related deaths among women, followed by lung cancer (13.8%) and colorectal cancer (9.5%) (Johns Hopkins University, 2000). An estimated 627,000 women succumb to breast cancer each year, accounting for approximately 15% of all cancer-related deaths in women (Frost et al., 2000).

On the other hand, advancements in the early detection and treatment of breast cancer have resulted in longer survival rates for these patients. Moreover, breast cancer can significantly impact women's sense of identity, making it crucial to study the quality of life in women who undergo breast removal. Additionally, women often play a central role within their families, and when a woman is diagnosed with breast cancer, it can affect the well-being of all family members (Corle et al., 2001). The period around diagnosis, the initial stages of adjuvant treatment, and the months immediately following the completion of adjuvant therapy are times of poor adjustment and reduced quality of life for patients diagnosed with breast cancer (S. H., 2001, Richardson et al., 2007). Research has indicated that a decline in health-related quality of life due to chemotherapy side effects can predict early discontinuation of treatment in these patients (Costanzo et al., 2007). Conversely, studies on the post-treatment adjustment of breast cancer survivors suggest that these patients may benefit from an improved quality of life (Ward et al., 1992). However, according to other findings, the end of treatment can be exceedingly stressful for women with breast cancer, especially for those who have received adjuvant chemotherapy and/or radiation treatments (Montazeri et al., 2008).

Being diagnosed with breast cancer is an incredibly stressful experience that has profound consequences for most individuals, impacting all areas of life. The temporary side effects of treatment can also affect a patient's health-related quality of life during the treatment process. Typically, the initial treatment for breast cancer involves surgery, after which many patients are advised to undergo additional treatments such as radiotherapy, chemotherapy, or hormonal therapy. These various factors can all contribute to a decline in the patient's quality of life (Eisenbraun et al., 2010; N. D., 2009; Grabsch et al., 2006). Furthermore, the incurable nature of breast cancer and the possibility of its recurrence often causes more psychological distress than the diagnosis of primary breast cancer itself, further impacting the patients' quality of life (Perry et al., 2007; Daldoul et al.,n.d). However, a more recent study found that socio-demographic factors such as education level, marital status, age, comorbidities (e.g., diabetes, high cholesterol), and the type of treatment (surgery, radiotherapy, or hormone therapy) do not significantly affect the quality of life (Ediebah et al., 2014).

Assessing the quality of life of patients provides numerous benefits, including helping clinicians and patients set accurate expectations about the likely impact of treatments on well-being and functioning. It also enables the identification of common issues that need to be addressed, as well as the recognition of effective therapies and interventions for managing these problems. Furthermore, research suggests that quality of life data can enhance clinicians' ability to predict treatment responses and survival times in certain contexts. Additionally, numerous studies have shown that a better quality of life is linked to longer survival in patients with various types of cancer (Hirai et al., 2012; Sharma et al., 2013; Mekelle University, 2018).

However, to the researchers' knowledge, no qualitative studies have been conducted in Ethiopia to evaluate the quality of life of patients diagnosed with breast cancer. Given the rising prevalence of breast cancer, its impact on quality of life, and the limited local reports on the quality of life of patients diagnosed with breast cancer, this study aims to explore the quality of life of patients diagnosed with breast cancer undergoing chemotherapy treatment.

Methods and Materials

Study Area

The study was conducted at Ayder Comprehensive Specialized Hospital (ACSH) in Mekelle City, Tigray, 783 km north of Addis Ababa. Serving 8 million people across Tigray, Afar, and Amhara, ACSH is the second-largest hospital in Ethiopia with about 500 inpatient beds. It functions as a teaching hospital for Mekelle University's College of Health Sciences. The oncology department has 10 doctors, 108 beds, and an outpatient oncology clinic. ACSH began offering referral and specialized services in 2000 E.C.

Study Design and Period

A descriptive qualitative study was conducted to explore the quality of life of patients on chemotherapy at Ayder Comprehensive Specialized Hospital from their own perspective. The study took place from February to March 2020, during which data collection was carried out.

Study Population

The study population consisted of patients diagnosed with breast cancer who had been receiving chemotherapy for at least six months prior to the data collection period.

Sample Size Determination

The study determined the sample size based on information saturation, ensuring comprehensive data collection without redundancy. Eighteen in-depth interviews were conducted with patients on chemotherapy, purposely selected to reflect diverse experiences. The selection criteria aligned with the research objectives, ensuring varied perspectives on quality of life. Interviews continued until no new themes or insights emerged. This approach ensured sufficient data was collected to capture a full range of experiences.

Participant Selection and Sampling Procedure

Participants were purposively selected to ensure a diverse representation of patients diagnosed with breast cancer receiving chemotherapy, considering factors like reproductive history and residential background. The study included patients who had been undergoing chemotherapy for at least six months and could actively engage in interviews. The Principal Investigator (PI) was responsible for selecting individuals with the most relevant and insightful experiences. Oncology nurses at Ayder Comprehensive Specialized Hospital helped identify and contact eligible participants, considering their health status and ability to participate. Women who were too ill to communicate effectively were excluded from the study. The selection process aimed to capture a wide range of experiences to provide a comprehensive understanding of chemotherapy’s impact on quality of life. This approach ensured the inclusion of participants who could share meaningful insights. The sample reflected diverse patient backgrounds to enrich the data. By excluding those unable to participate, the study maintained quality in the information gathered. Overall, the procedure aimed for a well-rounded and informative sample to explore the experiences of patients diagnosed with breast cancer undergoing chemotherapy.

Data Collection Tools and Procedures

Data were collected through in-depth interviews with patients diagnosed with breast cancer undergoing chemotherapy, using semi-structured, open-ended, and non-directive questions. The EORTC QLQ-C30, a tool assessing physical, emotional, cognitive, and social functioning, as well as symptoms like fatigue, pain, and nausea, guided the interviews. The questionnaire was adapted to the study context and used to evaluate the health-related quality of life (HRQOL) of the participants. The interviews were conducted in a comfortable and quiet environment, chosen based on participant preferences, to ensure they could freely share their experiences. A team of one moderator, a field assistant, and a tape recorder collected the data. Data collectors underwent a one-day training session before starting the interviews. Each interview lasted 35-45 minutes and was audio-recorded with the participant's consent. Three interviews were conducted each day to allow for the integration of emerging issues, continuing until data saturation was reached. Data collection concluded when no new insights emerged, signaling that saturation had been achieved.

Trustworthiness

To ensure the trustworthiness of the study, key strategies were employed to enhance credibility, dependability, confirmability, and transferability. Credibility was achieved by using semi-structured, open-ended questions, allowing participants to freely express their experiences. Interviews were conducted in a private, comfortable setting, and data saturation was reached after 18 interviews, confirming comprehensive representation of participants' experiences. Adapting the EORTC QLQ-C30 tool to the local context further ensured the findings' relevance.

Dependability was maintained through a standardized procedure, including a one-day training session for data collectors and adherence to a detailed interview protocol. Confirmability was ensured by maintaining transparency in data collection and analysis, with interviews audio-recorded, transcribed, and reviewed for accuracy. Member checking and peer debriefing reduced bias and enhanced objectivity. Transferability was supported by providing detailed descriptions of the study context, participant selection, and data collection methods, enabling readers to assess the applicability of the findings to other settings. These strategies ensured the study's rigor and reliability.

Data Analysis

The data analysis followed a deductive content analysis approach, guided by pre-established themes identified through a review of existing literature on health-related quality of life. These themes served as the initial framework for both coding and thematic categorization.

All audio-recorded in-depth interviews (IDIs) were transcribed verbatim and thoroughly reviewed multiple times. Field notes from the research assistant were incorporated to contextualize participant responses. Transcripts, originally in Tigrigna, were translated into English by the investigators. A second fluent translator reviewed all translations for accuracy. In cases of discrepancy, the principal and co-investigators re-examined the audio recordings to reach consensus. The principal investigator then conducted a final quality check before analysis.

Prior to coding, the principal investigators read each transcript to ensure familiarity with the content, focusing particularly on data relevant to the predetermined thematic categories. Transcripts were formatted in Microsoft Word and imported into Open Code software for structured analysis.

Coding was conducted collaboratively by the investigators, using the predefined thematic framework to categorize responses. Any uncertainties or divergent interpretations were resolved through discussion and consensus. After coding, data were organized into thematic categories aligned with the initial analytical framework. Themes were then refined and illustrated with direct quotations from participants.

Comparative analysis was conducted across transcripts to explore how participants' perspectives aligned or diverged within each theme. The analysis emphasized the depth and variability of experiences related to health-related quality of life, with findings presented in narrative form, structured according to the predefined thematic domains.

Ethical Consideration

Ethical clearance was obtained from Health research ethics review committee (HRERC) of Mekelle University, college of Health sciences with ethical registration code (ERC) of 1494/2020. Participation was voluntary and oral informed consent was obtained from each respondent after through explanation of the purpose, risk, justice, right to withdraw and benefit of the study. Participants were informed that all the data obtained from them were kept confidential and anonymous.

Result

Socio-Demographic Characteristics

A total of eighteen in-depth interviews were conducted with patients diagnosed with breast cancer who had been undergoing chemotherapy for at least six months at Ayder Comprehensive Specialized Hospital. The participants' ages ranged from 26 to 62 years. Among them, 55.56% were urban residents, and 77.78% were married (Table 1).

Table 1: Socio-demographic profile of patients diagnosed with breast cancer receiving chemo-therapy in Ayder comprehensive specialized Hospital, Mekelle, Ethiopia.

Variables	**Number (%)**
Age of respondents	
<=30	3(16.7)
31-40	6(33.3)
41-50	4(22.2)
>50	5(27.8)
Residence	
Urban	10(55.6)
Rural	8(44.4)
Marital status	
Married	14(77.8)
Single	3(16.7)
Divorced	1(5.6)
Occupational status	
Government Employed	6(33.3)
House wife	9(50.0)
Merchant	1(5.6)
Private employed	1(5.6)
Farmer	1(5.6)
Educational status	
No formal education	9(50.0)
Primary school level	3(16.7)
Secondary school level	1(5.6)
Diploma and above	5(27.8)

Themes and sub-themes

Physical function of participants

Performance in heavy and light duty works

Most of the study participants reported that, since being diagnosed with breast cancer, they were unable to perform strenuous activities that required significant physical effort, such as lifting heavy items. They explained that the pain and weakness they experienced left them unable to engage in or successfully complete such demanding tasks.

"Since being diagnosed with breast cancer, I have been completely unable to engage in heavy-duty work. Even when I try to do very light tasks, I suffer greatly because the skin on my chest feels stretched in all directions." (34-year-old patient)

Many participants reported that their ability to perform daily tasks further declined after undergoing surgery, leading to the majority of household chores being taken over by their family members or relatives.

"I try to do my work at home, but I am limited on the side where the surgery was performed. It feels tight there, and sometimes it swells, bursts, and releases blood. The tightness in my chest also restricts the movement of my arm. Because of this, my energy continues to decline over time." (54-year-old patient)

However, nearly all of the participants reported that, aside from the pain they experienced on the affected side while dressing, they had no difficulty independently performing simple activities such as dressing, eating, and using the toilet.

"When I wash and apply pressure to the affected side while wearing tight clothes, I feel pain. However, I have no trouble eating or using the toilet on my own. Of course, when I'm undergoing chemotherapy, there are times when I am unable to do any tasks, and my family helps me with preparing food and washing clothes." (28-year-old patient)

Ability to walk long and short distance

Most participants reported lacking the strength to take long walks due to their condition. However, when they occasionally attempted to walk longer distances, they felt extremely weak and experienced pain, particularly around the affected side and the area where the surgery was performed. As a result, they described themselves as unable to successfully complete long walks.

"When I walk, I experience significant limitations, even in the pace of my movement. When I stand, I feel pain in my joints. I don't often go on long journeys, but when I do, I feel weak, and every part of my body aches." (48-year-old patient)

Additionally, many participants reported feeling weak after walking even short distances. They mentioned that while the pain and weakness might not be immediately noticeable or problematic during the walk itself, once they returned home, they experienced discomfort that disrupted their sleep patterns at night.

"When I rest, I feel better. However, when I move, engage in a task, or walk even a short distance, I experience pain and discomfort that affects my sleep at night. From this, I understand that this disease requires rest." (60-year-old patient)

Place where patients spend most of their time

The majority of participants reported that before starting chemotherapy, they spent most of their time at home, preparing meals for their families and managing other household tasks. However, after beginning chemotherapy, they described themselves as feeling weak and spending the majority of their time confined to bed or sitting in a chair, watching television at home. They noted that they were no longer able to go for even short walks outside their home.

"Since I started treatment, I spend all my time at home. During the day, I either lie in bed or sit in a chair. I don't go outside except to visit the hospital for medical care, like I'm doing today." (45-year-old patient)

Cognitive function

Almost all participants reported no issues with concentration. They mentioned experiencing some stress due to the disease and the medications they were taking, but when they planned to carry out a task, read a magazine, or watch television, they were able to do so easily and with full focus.

"I don't have any issues with concentration. I have no trouble watching television or reading newspapers. In fact, these activities entertain me and give me hope during this difficult time." (34-year-old patient)

Emotional function

Most patients described being diagnosed with breast cancer as a shocking experience. Based on what they had read or heard from others, many believed that breast cancer was fatal. As a result, when they were informed of their diagnosis, they felt intense stress, shock, and despair, as they were convinced that cancer had no cure.

"It was incredibly shocking. My mind was overwhelmed, and my body felt tense. I didn't believe this disease had a cure, and I never expected to be alive until now. However, my husband was by my side, offering constant support. He encouraged me not to stress and promised to take me to the best possible healthcare facility. He told me that while my breast may or may not remain intact, I shouldn't worry. He reassured me that I could be cured and provided me with tremendous moral support." (48-year-old patient)

The emotional well-being of participants was also influenced by what they saw and heard in their communities. One participant shared that she knew two patients diagnosed with breast cancer from her area who passed away while undergoing treatment. This deeply stressed her, as she feared she would share the same fate.

"I was deeply alarmed and frightened. I had heard that breast cancer is fatal, but I never heard of anyone being cured through treatment. My husband is a healthcare worker, and when I saw two women from

Hewane die of cancer, I became convinced that cancer has no cure. So, when the doctor told me I had cancer, I felt hopeless. I thought I was going to die." (32-year-old patient)

Most participants also revealed that after being diagnosed with breast cancer and sharing their status, their emotional state became unstable and often unpredictable. Many reported feeling easily irritated, stressed, and angry, frequently quarreling with family members and others over trivial matters. However, over time, they found ways to improve and regain emotional stability. *"At this point, I have seen improvement. In the beginning, I was upset, irritable, and worried, but now, thanks to the support and information from my healthcare providers, and after coming to terms with my condition, I have improved." (28-year-old patient)*

The majority of participants also mentioned that things improved after they visited the healthcare facility. Many reported that receiving appropriate information from their doctors and sharing experiences with other patients diagnosed with breast cancer provided them with significant emotional relief.

"Since I came to this hospital, I have received tremendous moral support. When I was at home, I felt like I was the only one suffering, but here, I see many others facing similar challenges. I feel emotionally stable now, especially after seeing individuals who have physically improved after their treatment. I have hope that I, too, will be cured." (38-year-old patient)

Social Function

Participants described having limited social functioning, explaining that they were no longer involved in church, Edir (a local financial service organization), or other social gatherings as they had been before. The burden of the disease and the medications they were taking made it difficult for them to engage in these activities. Additionally, many participants believed that the community looked down on them, which affected their relationships with friends, relatives, and neighbors.

"The disease has a very serious impact. It makes me avoid being around people. I feel as though others dislike me, so I have withdrawn from my social life. However, the community and my family have been a great support to me." (60-year-old patient)

Many participants also shared that, after their diagnosis, they often had to travel long distances to different facilities for treatments such as surgery, chemotherapy, and radiotherapy. This separation from their children, family members, and relatives caused them significant distress. They felt helpless, as they were unable to care for their families or children, which led to increased stress and worry. Many believed that this emotional strain worsened their condition and contributed to their sense of misery.

“When I went to Addis Ababa for radiotherapy, I faced many challenges. Being separated from my children and other family members because of this disease caused me a great deal of stress and frustration. I have a three-year-old child whom I had to leave behind at home. However, because I was so worried about her, I returned home before finishing my treatment and took her with me to Addis Ababa so she could stay with me until I completed my radiotherapy. This situation made my life very difficult and miserable.” (48-year-old patient)

Many participants explained that while their parents and children were always by their side, providing support in various ways as needed, their husbands were often unsupportive and emotionally distant. When husbands realized the financial burden of the disease and the responsibility of caring for the children, they became argumentative and disagreed on many decisions. This tension sometimes led to marital breakdowns and family disintegration, which in turn worsened the patients' conditions. Participants also shared that once their illness became apparent, many relatives distanced themselves and lacked a supportive attitude.

“When my husband found out I had breast cancer, he left me and went to stay with his family. This caused a quarrel between my parents and his. Before I became ill, I lived in my own home, but after my husband left for his parents' house and there was no one to care for my children, I had to move in with my parents. Now, it’s my mother who prepares food for us.” (26-year-old patient)

“...My parents are already deceased, and there is no one supporting me now. When you’re sick, people aren't as kind as you'd hope. The support from my relatives has been poor. Instead of helping, they irritate me, worry me, and act as though they are overly concerned. They don't even greet me. I often wonder if they look down on me because I’m sick. Sometimes, I feel like leaving everything behind and going to a monastery, but I can’t because I have two children and a husband to take care of.” (37-year-old patient)

Almost all patients shared that they did not have sufficient financial resources to cover their treatment and transportation costs. Upon being diagnosed with breast cancer, they were required to pay for surgery, chemotherapy, and radiotherapy at the healthcare facilities. Furthermore, since these services were spread across different health centers located far from one another, many patients expressed frustration over the high costs of transportation and accommodation. In order to meet these financial demands, patients were forced to sell livestock and other household possessions, as well as borrow money from friends, relatives, and neighbors—an especially difficult task in a setting with limited resources.

“Before I was certified and became eligible for free insurance services, I paid twenty thousand birr for the operation. Prior to that, I also had two laboratory investigations and two ultrasound exams, for which I paid three thousand birr. I lost everything—my cow, ox, and donkey—just to cover the cost of my medical care.” (50-year-old patient)

“My children and husband were very worried. At the beginning, I didn’t have medical insurance, and as a result, I faced a lot of difficulties. I had to borrow money to cover my medical expenses.” (62-year-old patient)

Symptoms

Most participants shared that from the moment they suspected they had the disease, they often experienced moderate to severe pain. Initially, the pain was localized to the area of the breast where the lump was detected. However, for many patients, as the disease progressed and surgery was performed, the pain spread to the surrounding tissues, becoming more intense. This pain significantly impacted their daily activities and the range of motion in their body parts. In addition to the physical discomfort, participants noted that the pain also affected their mood, making it difficult for them to sleep at night. Other symptoms, such as a burning sensation, vomiting, weakness, severe breast pain, sweating, and a loss of movement, were also reported by the participants.

"After being diagnosed with breast cancer, I experienced severe pain in my breast and felt extreme weakness in my body. In addition, I suffered from intermittent sweating and a burning sensation throughout my body, including my shoulder. I also have significant limitations in movement in the area where the operation was performed." (62-year-old patient)

Participants reported that before starting chemotherapy and immediately after treatment began, they experienced intermittent constipation, diarrhea, loss of appetite, and sleep disturbances. However, after a period of time, these symptoms subsided, and patients indicated that they began to feel better.

"After starting treatment, my bowel habits improved. I occasionally experienced constipation, but it was only for one day. Previously, I had a significant loss of appetite and wasn't interested in any food. However, now that I've begun treatment, I can eat any type of food." (54-year-old patient)

Drug side Effects/Symptoms Experienced After Treatment Started

The majority of patients reported hair loss along with side effects such as fatigue, body aches, nausea, and reduced appetite after beginning chemotherapy. Due to receiving thorough counseling beforehand, they were mentally prepared and did not feel significantly alarmed. Menstrual irregularities and abdominal discomfort were also frequently mentioned during the treatment period. Over time, many noted that these symptoms became less intense and more manageable.

"Oh, the medication is very strong. During treatment, the food smells awful and unappetizing. By the second month of my treatment, I lost all my hair, but since I was informed about the side effects beforehand, I

wasn't psychologically affected. Additionally, chemotherapy disrupts your sleep; it keeps you awake, causing vomiting and pain. You just feel unwell. It also gives you a burning sensation, almost like a fever." (48-year-old patient)

Participants also noted that the impact of chemotherapy drugs on body hair varied across different phases of treatment. They reported that while all body hair was lost during the first and third phases, it began to regenerate during the second phase of treatment.

"In the first phase of treatment, all of my scalp hair fell out. However, when I started taking the tablets, it began to regenerate. Unfortunately, when I began the third phase of treatment, my hair fell out again." (54-year-old patient)

Discussion

Understanding the quality of life of chronic patients undergoing surgical and other therapeutic treatments is crucial for developing effective palliative care services and coping strategies. This qualitative study aimed to explore the quality of life of patients diagnosed with breast cancer receiving chemotherapy at Ayder Comprehensive Specialized Hospital in Tigray. It focused on participants' experiences with physical, cognitive, emotional, and social functions, as well as symptoms and treatment side effects. The findings are intended to help improve palliative care and coping strategies for these patients.

The study found that most patients were no longer able to perform strenuous activities they had managed before their diagnosis. This decline in physical function worsened following surgery and the start of chemotherapy. Participants frequently reported symptoms such as fatigue, muscle weakness, and limited mobility, indicating that treatment significantly affected their physical abilities. Despite these challenges, patients consistently maintained the ability to carry out basic daily tasks, including dressing, washing, eating, and toileting. This aligns with existing literatures reporting that while cancer treatment often reduces overall physical functioning, many patients retain the ability to manage basic activities of daily living (ADLs) (Luoma & L. H. B., n.d; Suwankhong & P. L., 2018; Iddrisu & L. F. D., 2020; Hu et al., 2021). Exhaustion and difficulty with heavy tasks were linked to the combined effects of chemotherapy, the disease, and surgical or tumor site pain. Additionally, pain and weakness from both the disease and chemotherapy were significant factors limiting patients' ability to walk short and long distances (Kayl & C. A. M., n.d).

Unlike other studies (Preedy & Watson, 2010), participants in this study exhibited intact cognitive function. Despite the stress from medications and the disease process, they did not face difficulties with concentration. They were able to perform tasks, recall past events, read magazines, and watch television with ease and focus. The differences in cognitive function may be attributed to several factors. Variations in sample characteristics, such as age and cancer stage, could influence cognitive outcomes. The participants in this study may have had a less aggressive treatment regimen or experienced a different disease progression, which could have helped preserve cognitive function. The timing of cognitive assessments might have also affected the results, as they could have been conducted during a recovery phase with fewer cognitive impairments. Additionally, individual factors such as resilience, coping strategies, and overall health may have contributed to their ability to maintain focus and perform daily activities effectively.

The emotional wellbeing of participants was profoundly affected upon learning of their diagnosis. When informed that they had breast cancer, nearly all patients experienced shock and fear, often fearing for their lives. Having previously heard that cancer is usually fatal, many patients felt desperate and lost hope for survival. Consequently, their emotional states became unstable, with frequent mood fluctuations. Most patients experienced increased irritability, stress, and unnecessary conflicts with family members and others. However, the emotional wellbeing of most participants improved significantly after receiving counseling. With clear information from their doctors and the opportunity to share experiences with other patients diagnosed with breast cancer, they found substantial emotional relief. These findings are consistent with those of similar studies (Bennett et al., 2007; LB et al., 2008; Redhwan et al., 2009; Wampaalu et al., 2016; Hajian et al., 2017; Ho et al., 2018; Maleki et al., 2021). The patients' initial emotional reactions, such as shock, fear, and hopelessness, can be explained by the overwhelming nature of a cancer diagnosis, which is often associated with life-threatening implications. Many patients, having heard cancer is typically fatal, naturally fear for their lives upon diagnosis. This fear, combined with uncertainty about the future, triggers heightened stress and emotional instability. The psychological burden of facing such a significant health crisis, coupled with societal perceptions of cancer, often results in irritability, stress, and interpersonal conflicts, especially with family members who may not fully understand the emotional complexities involved.

However, the improvement in emotional wellbeing observed after counseling and peer support can be attributed to effective coping mechanisms and the role of social support. Counseling offers patients clarity, helping them process their emotions and gain a better understanding of their diagnosis, which reduces uncertainty. Peer support, where patients share experiences with others facing similar challenges, fosters a sense of community, helping to reduce feelings of isolation.

The exhaustion caused by the disease, the burden of medication, and severe pain, along with negative societal attitudes toward breast cancer, had a significant impact on the social functioning of participants. As a result, they were no longer able to engage in activities they once enjoyed, such as attending church, participating in Edir (a local financial service), or taking part in social gatherings. Additionally, many patients had to travel long distances for treatments like surgery, chemotherapy, and radiotherapy, leading to separation from their children, family members, and relatives. This separation, combined with the inability to care for their children, caused considerable stress and worry. These findings align with those from a systematic review (Safaee et al., 2008).

Almost all patients reported lacking sufficient financial resources to cover their treatment and transportation costs. Furthermore, as these services were spread across multiple health facilities located far apart, they faced significant expenses for transportation and accommodation. To meet these financial demands, patients sold livestock, such as cattle and goats, along with household items, and borrowed money from friends, relatives, and neighbors. As a result, they expressed feelings of financial strain. This finding contrasts with studies conducted in Sweden, Brazil, and Iran (Høyer et al., 2011; Lôbo et al., 2014; Nies et al., 2018), where patients may have had more access to financial support or resources. The variation in financial strain experienced by patients in this study compared to those in Sweden, Brazil, and Iran can be explained by differences in healthcare systems and social safety nets. In many countries, such as Sweden, Brazil, and Iran, public healthcare systems or government programs may provide greater financial support for cancer treatment, reducing the financial burden on patients. In contrast, the lack of comprehensive healthcare coverage or financial assistance in the setting of this study leaves patients with limited resources, forcing them to sell assets and borrow money to cover treatment and transportation costs.

Consistent with other studies (Luoma & L. H. B., n.d, Kayl & C. A. M., n.d; Suwankhong & P. L., 2018; Redhwan et al., 2009), most patients reported severe breast pain, weakness, burning sensations, limited movement, intermittent constipation, loss of appetite, and sleep disturbances. Initially, pain was localized to the breast area where the lump was detected, but as the disease progressed and surgery was performed, it extended to surrounding tissues, affecting daily activities and sleep. After treatment began, all symptoms, except for pain and weakness, improved. Additionally, weakness, hair loss, menstrual disturbances, and loss of appetite were noted as side effects of chemotherapy, aligning with findings from other studies (Preedy & Watson, 2010; Sibeoni et al., 2018). The pain and symptoms reported by patients are primarily due to the physical impact of breast cancer and the trauma caused by surgery, affecting surrounding tissues. Chemotherapy side effects, such as weakness, hair loss, and loss of appetite, result from the treatment's effect on both cancerous and healthy cells. While many symptoms improve over time as the body adjusts to treatment, persistent pain and weakness often remain due to the lasting effects of both the disease and its treatments.

Limitation of the study

The findings of this study should be interpreted with consideration of several limitations. Patients who discontinued chemotherapy early were not included, which may have resulted in missing perspectives on treatment experiences. Additionally, only those willing to participate were interviewed, potentially limiting the representation of patients who declined involvement. Despite these limitations, the interviews provided valuable insights into the experiences and side effects of chemotherapy.

Another limitation is the reliance on self-reported data, which could introduce bias due to variations in recall, perception, and personal experiences. The study primarily focused on subjective reports of pain, emotional distress, and social function, which, while important, may not fully capture other aspects of quality of life, such as long-term psychological effects or the financial burden of treatment.

Conclusion and Recommendation

This study highlights the significant impact of chemotherapy on the HRQOL for patients diagnosed with breast cancer, particularly affecting their physical, emotional, and social well-being. Patients often face physical limitations, such as difficulty walking or performing daily tasks, alongside emotional distress like fear and uncertainty about their prognosis. The dual burden of cancer and treatment, combined with insufficient social support, leads to heightened anxiety and emotional turmoil. However, those who received emotional support from healthcare providers and peer networks showed improved emotional stability and coping mechanisms.

The study recommends that healthcare providers offer more comprehensive support systems, which should include not only medical care but also emotional counseling, psychological assistance, and community engagement. Peer support groups are critical for patients to share experiences and encourage one another. Additionally, policymakers should focus on improving healthcare access, reducing financial burdens, and expanding insurance coverage. It is also essential to create national guidelines integrating mental health and social welfare services into cancer treatment. Future research should explore the long-term psychological and financial effects of chemotherapy to guide the development of better patient care strategies and policies for a holistic approach to patient support.

Declarations

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Data Availability

The raw data file could be provided for research purpose up on request via email of the corresponding author (destahailu19@gmail.com).

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Declaration of Conflicting Interest

The author(s) declared no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

Author Contributions

DH: Conceived and designed the study, supervised the data collection, performed the analysis, interpretation of data, and drafted the article. HB, HBK, GB, KK, YB: Participated in Co-designing the study, data interpretation, supervised the data collection, data analysis and they critically reviewed the article. SA: Assisted in data interpretation, data collection and critically reviewed the article. All authors have read and approved the final article.

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