KMAN PUBLISHING INSTITUTE

Article history:
Received 09 April 2025
Revised 09 September 2025
Accepted 16 September 2025
Published online 01 October 2025

Quality of Life and Health Sciences

Volume 1, Issue 2, pp 1-16

Lived Experiences of Health-Related Quality of Life Among Women With Breast Cancer Undergoing Chemotherapy: A Phenomenological Study

Sophie. Krier[1], Sarah. Jenkins[2]*

[1] Department of Behavioral Sciences, University of Luxembourg, Esch-sur-Alzette, Luxembourg
[2] Department of Clinical Psychology, University of Waterloo, Waterloo, Canada

*** Corresponding author email address**: s.jenkins@uwaterloo.ca

Article Info

Article type:
Original Research

How to cite this article:
Krier, S., & Jenkins, S. (2025). Lived Experiences of Health-Related Quality of Life Among Women With Breast Cancer Undergoing Chemotherapy: A Phenomenological Study. *Quality of Life and Health Sciences, 1*(2) 1-16.
http://dx.doi.org/10.61838/kman.qlhs.5765

ABSTRACT

Objective: This study aimed to explore the lived experiences of health-related quality of life among women with breast cancer undergoing chemotherapy in Canada.
Methods and Materials: This qualitative study was conducted using a phenomenological design. The participants were 22 women with breast cancer undergoing chemotherapy in oncology treatment centers in Canada, selected through purposive sampling with maximum variation in age, marital status, disease stage, treatment duration, and socioeconomic background. Data were collected through individual semi-structured in-depth interviews using an interview guide focused on physical, psychological, social, emotional, functional, and meaning-related dimensions of health-related quality of life. A demographic and clinical information form and field notes were also used to enrich the contextual understanding of participants' experiences. Interviews continued until data saturation was achieved. All interviews were audio-recorded, transcribed verbatim, anonymized, and analyzed using Colaizzi's phenomenological method.
Findings: The inferential analysis of participants' narratives led to the extraction of five major themes reflecting the essential structure of health-related quality of life during chemotherapy. The first theme, embodied disruption and treatment burden, indicated that fatigue, nausea, pain, neuropathy, sleep disturbance, and reduced functioning reshaped women's bodily control and daily independence. The second theme, altered identity, femininity, and body image, showed that hair loss, breast changes, and visible signs of illness affected self-perception and femininity. The third theme, emotional vulnerability and existential uncertainty, reflected anxiety before chemotherapy, fear of recurrence, sadness, and confrontation with mortality. The fourth theme, relational reorganization and social dependence, revealed changes in family, marital, parental, and social roles. The fifth theme, preserving normality, meaning, and control, demonstrated women's efforts to maintain routines, seek information, accept support, use coping strategies, and sustain hope.
Conclusion: Health-related quality of life among women with breast cancer undergoing chemotherapy is a multidimensional and dynamic lived experience shaped by bodily symptoms, emotional uncertainty, altered identity, social dependence, and meaning-making processes. The findings highlight the need for holistic, patient-centered oncology care that addresses physical symptoms alongside emotional, relational, sexual, functional, and existential dimensions of treatment.

Keywords: *Breast Cancer; Chemotherapy; Health-Related Quality of Life; Lived Experience; Phenomenology; Women; Qualitative Research*

1. Introduction

Breast cancer remains one of the most consequential diagnoses in women's health because it affects not only survival and disease control but also the embodied, psychological, relational, sexual, and existential dimensions of women's lives. Advances in screening, multimodal treatment, systemic therapy, surgical techniques, and survivorship care have improved clinical outcomes for many women; however, the experience of breast cancer continues to extend far beyond the biological presence of a tumor. For women undergoing chemotherapy, the diagnosis is often lived as a profound interruption in ordinary life, marked by physical symptoms, uncertainty about the future, changes in self-image, dependency on others, and continuous negotiation between treatment demands and personal identity. Health-related quality of life has therefore become a central outcome in breast cancer research and care, because biomedical indicators alone cannot capture how women experience illness, treatment, recovery, and survivorship in everyday contexts. Reviews of health-related quality of life measures in women with breast cancer have emphasized that quality of life is multidimensional and must be understood through physical, emotional, functional, social, and disease-specific domains rather than through clinical response alone (Salas et al., 2021). Similarly, real-world patient-reported outcome research has shown the importance of standardized approaches for assessing quality of life in women with breast cancer, particularly because patients' lived burdens may remain underrecognized when evaluation is limited to disease status or clinician-rated toxicity (Clarijs et al., 2021).

Chemotherapy occupies a particularly significant place in the breast cancer trajectory because it is both a life-preserving intervention and a source of considerable disruption. Women receiving chemotherapy commonly experience fatigue, nausea, appetite changes, pain, neuropathy, sleep disturbance, cognitive changes, and reduced functional capacity, all of which can alter the rhythm of daily life and diminish perceived well-being. Recent studies comparing women with breast cancer undergoing chemotherapy or hormonal therapy have highlighted the relevance of fatigue, muscle strength, and functional limitation as central factors in quality of life during systemic treatment (Silva et al., 2025). Research on women before and after neoadjuvant chemotherapy has further demonstrated that health-related quality of life and disease acceptance are closely connected, indicating that the treatment process influences not only symptom burden but also women's psychological adjustment to the illness experience (Konieczny et al., 2025). In this sense, chemotherapy is not merely a therapeutic procedure; it is an embodied experience that can reshape how women perceive their bodies, organize their days, manage energy, and maintain a sense of continuity with life before cancer.

The physical burden of breast cancer treatment is often cumulative and multidimensional. Symptom burden has been shown to be closely associated with health-related quality of life among women recently diagnosed with breast cancer, suggesting that even early in the disease trajectory, physical and emotional symptoms are deeply intertwined with perceived well-being (Safar & Mazanec, 2023). Disease-specific symptom assessment tools have also been developed and validated to capture breast cancer prevention and treatment-related symptoms more accurately, reflecting the need to identify symptom patterns that may not be adequately represented in generic quality of life instruments (Kuang et al., 2024). In addition to chemotherapy-related symptoms, women may face lymphedema, sleep problems, nutritional concerns, and treatment-related changes in appetite and weight. Studies on breast cancer-related lymphedema have shown that sleep quality and quality of life are meaningfully connected, indicating that treatment sequelae can affect rest, functioning, and emotional regulation (Tamam et al., 2021). Nutritional status and adherence to healthy dietary patterns have also been investigated in relation to quality of life among women affected by breast cancer, underscoring the role of eating behavior, physical vitality, and self-care in the broader experience of illness (ŞAhİN, 2023). Although radiotherapy differs from chemotherapy, studies of quality of life among women with breast cancer receiving radiotherapy further demonstrate that oncology treatment can affect women's daily functioning, symptom experience, and perception of well-being across treatment modalities (Jonatas Gomes Barbosa da et al., 2022).

A substantial body of research also indicates that the impact of breast cancer treatment cannot be understood without attention to body image, femininity, sexuality, and intimate life. Breast cancer directly concerns a body site culturally and personally associated with femininity, sexuality, motherhood, attractiveness, and identity. As a result, treatment-related changes such as hair loss, mastectomy, breast reconstruction, scarring, fatigue, menopausal symptoms, and sexual dysfunction may produce distress that is not reducible to physical discomfort. Studies of sexual quality of life in women with breast cancer have emphasized that sexual well-being is a major but frequently under-discussed component of survivorship and quality of life (Brajković et al., 2021). More recent work on sexual quality of life and body image has further argued that symptoms must be interpreted through their meanings for women's self-perception, relationships, and embodied identity (Brajković et al., 2024). Patient-reported studies among young adult cancer survivors have similarly shown the importance of sexual function as an outcome that affects quality of life across the survivorship period (Fitz et al., 2023), while long-term survivor research has demonstrated that sexual health concerns may persist years after breast cancer diagnosis and treatment (Smedsland et al., 2023). These findings suggest that the quality of life of women undergoing chemotherapy must be examined not only through immediate toxicity but also through the meanings attached to bodily change, intimacy, and selfhood.

The psychosocial consequences of visible treatment effects are particularly salient during chemotherapy. Chemotherapy-induced alopecia can make illness visible to others and may reduce women's control over disclosure, privacy, and self-presentation. Research on chemotherapy-induced alopecia distress has shown that hair loss is associated with body image and psychosocial well-being among patients with breast cancer, and that internal psychological resources such as locus of control may influence how women respond to these changes (Naeem et al., 2023). Eating behavior and body image have also been studied among women with breast cancer, indicating that changes in the body are experienced through nutritional habits, weight perception, emotional response, and social comparison (Sara Maria Moreira Lima et al., 2021). At the same time, surgical and reconstructive pathways add further complexity to women's post-diagnosis quality of life. Studies on satisfaction and quality of life after breast reconstruction demonstrate that breast cancer care involves not only removal or control of disease but also efforts to restore body integrity, identity, and psychosocial well-being (Alghamdi et al., 2024). Reviews and protocols addressing sexual health screening and telenursing interventions indicate that many women need structured opportunities to discuss sexual function, body image, and intimate concerns, which may otherwise remain hidden in routine oncology consultations (Ferreira et al., 2022; Tounkel et al., 2022).

Emotional distress is another central dimension of health-related quality of life among women with breast cancer. The diagnosis can generate fear, sadness, shock, anger, anticipatory anxiety, uncertainty, and existential vulnerability. During chemotherapy, women may move repeatedly between hope and fear: hope that treatment will be effective, and fear of recurrence, metastasis, physical decline, or death. Studies have shown that psychological burden can predict quality of life among women with breast cancer, indicating that emotional distress is not secondary to the cancer experience but a core determinant of how women evaluate their well-being (Perveen et al., 2023). Quality of life and socio-emotional impact research has similarly demonstrated that oncological treatment may affect emotional functioning, social participation, and subjective well-being in women with breast cancer (Gică et al., 2024). Hope also appears to be an important psychological construct in this population, as validation work on hope measures among women with breast cancer suggests that future-oriented belief, agency, and goal-directed thinking are relevant to adaptation during illness (Vakili et al., 2022). More broadly, life attitude, coping, and stress responses have become increasingly important in breast cancer quality of life research, as shown by studies validating life-attitude measures and examining coping strategies among women diagnosed with breast cancer (Wypych-Ślusarska et al., 2025; Zhou et al., 2024). These studies collectively indicate that the lived experience of quality of life during chemotherapy is shaped by psychological interpretation as much as by clinical treatment exposure.

Supportive and integrative interventions also reflect the growing recognition that women's quality of life during breast cancer treatment requires attention beyond tumor-directed care. Randomized work on laser auriculotherapy among women with advanced breast cancer has addressed fatigue, anxiety, and quality of life, suggesting that symptom-focused supportive interventions may contribute to patient comfort and emotional regulation during advanced disease care (Marcondes et al., 2025). Mobile health interventions have also been systematically reviewed as potential tools for improving quality of life among cancer patients, reflecting the increasing role of digital monitoring, symptom self-management, communication, and supportive care beyond hospital settings (Bunevičienė et al., 2021). Patient-reported outcome and experience assessment initiatives in women with breast cancer further show that women's own evaluations of treatment, communication, burden, and care experience are essential for patient-centered oncology services (Coelho et al., 2023). These approaches are particularly important because many aspects of quality of life, including fatigue, body image distress, sexual concerns, family disruption, and fear of recurrence, may not be visible unless women are invited to describe them in detail. Therefore, quality of life research must move beyond measurement alone and attend to the subjective meanings through which women make sense of illness and treatment.

The social and relational consequences of breast cancer also require careful consideration. Women undergoing chemotherapy may need practical assistance with transportation, household responsibilities, employment adjustments, childcare, and treatment decisions. These needs may strengthen family closeness, but they may also produce guilt, dependency, role strain, and emotional burden. Research on caregivers of patients with breast cancer has shown that quality of life is not limited to the patient alone but extends into family systems and caregiving relationships (Clarijs et al., 2022). Breast cancer can also affect children, particularly when mothers are diagnosed at younger ages. Evidence of reduced psychosocial well-being among children of women with early-onset breast cancer illustrates that the illness experience is embedded in family life and may alter parental roles, communication, and children's emotional security (Schliemann et al., 2023). In global contexts, the implications of breast cancer treatment may be intensified by economic strain. Financial toxicity has been identified as a major burden in cancer care, particularly in low- and middle-income countries, where treatment-related costs can affect access, adherence, and family welfare (Donkor et al., 2022). Although the present study is situated in Canada, financial and occupational concerns remain relevant because chemotherapy may reduce work capacity, increase indirect costs, and alter women's sense of independence and contribution.

Quality of life among women with breast cancer is also shaped by health system, cultural, and measurement contexts. Studies in different countries demonstrate that women's experiences of breast cancer are influenced by healthcare access, social expectations, family structures, cultural meanings of femininity, and available support. Research among Emirati women with breast cancer has highlighted the importance of examining quality of life within specific sociocultural contexts rather than assuming a universal illness experience (Smail et al., 2022). Similarly, assessments conducted in Bangladesh and Nigeria have emphasized that both generic and disease-specific tools can provide important but different insights into women's quality of life, and that local contexts shape the interpretation of symptom burden, social support, and functional limitation (Isah et al., 2024; Islam et al., 2022). Instrument selection itself is therefore consequential. Comparative research using disease-specific and generic quality of life instruments among breast cancer survivors has shown that different measures may capture different dimensions of the patient experience, reinforcing the need to align assessment methods with research aims (Jang et al., 2022). These findings are directly relevant to qualitative inquiry because standardized tools can identify the presence and severity of problems, but phenomenological research can clarify how those problems are lived, interpreted, and integrated into the person's sense of self.

Surgical treatment, mastectomy, and reconstruction further demonstrate that breast cancer quality of life must be understood across the treatment continuum. Prospective research on the quality of life and mental health implications of mastectomy alone has indicated that breast cancer surgery can have substantial psychological consequences, particularly when women must adjust to altered body integrity and the emotional meaning of breast loss (Kennedy et al., 2023). These concerns intersect with chemotherapy because many women receive multimodal treatment, and the cumulative effect of surgery, chemotherapy, radiotherapy, endocrine therapy, and follow-up surveillance may intensify distress or prolong adaptation. In this context, the experience of quality of life is dynamic rather than fixed. A woman may feel physically depleted during chemotherapy, emotionally vulnerable before imaging or treatment appointments, socially dependent during periods of fatigue, and identity-disrupted when confronting hair loss or surgical changes. At the same time, she may experience resilience, gratitude, spiritual reflection, strengthened relationships, and renewed priorities. A phenomenological approach is therefore appropriate because it enables researchers to explore the essence and structure of women's lived experience, including the meanings that cannot be fully captured by numerical indicators.

Despite the growing literature on health-related quality of life in breast cancer, important gaps remain. Much existing research has relied on standardized questionnaires, cross-sectional designs, intervention outcomes, or symptom-specific measures. These studies are valuable and have clarified the importance of fatigue, sexual health, psychological burden, body image, sleep quality, nutrition, patient-reported outcomes, and treatment-related symptoms. However, fewer studies have provided an in-depth phenomenological account of how women undergoing chemotherapy experience health-related quality of life as a whole, integrated, and meaning-laden phenomenon. In particular, there is a need to understand how Canadian women receiving chemotherapy describe the interaction between physical symptoms, emotional vulnerability, altered femininity, family roles, healthcare relationships, coping strategies, and attempts to preserve normality. Such knowledge can inform patient-centered oncology care by identifying not only what women experience, but how they interpret those experiences and what forms of support they perceive as meaningful during treatment.

This study aimed to explore the lived experiences of health-related quality of life among women with breast cancer undergoing chemotherapy in Canada.

2. Methods and Materials

2.1. Study Design and Participants

This study was conducted using a qualitative phenomenological design to explore the lived experiences of health-related quality of life among women with breast cancer undergoing chemotherapy. The phenomenological approach was selected because the purpose of the study was to obtain an in-depth understanding of how women personally experience, interpret, and give meaning to changes in their physical, psychological, social, emotional, and functional well-being during chemotherapy. The study population consisted of women diagnosed with breast cancer who were receiving chemotherapy in oncology treatment centers in Canada. Participants were recruited from outpatient oncology departments and chemotherapy units in Toronto and Ottawa, Canada, using purposive sampling with maximum variation in age, marital status, stage of disease, treatment duration, and socioeconomic background. The final sample included 22 women with breast cancer undergoing chemotherapy. Sampling continued until data saturation was achieved, meaning that no new conceptual themes or substantial meanings emerged from the interviews. The inclusion criteria were being female, being 18 years of age or older, having a confirmed medical diagnosis of breast cancer, currently receiving chemotherapy or having completed at least two chemotherapy sessions, being able to communicate in English, and being willing to share personal experiences in an interview. Women were excluded if they had severe cognitive impairment, acute psychiatric crisis, advanced physical deterioration that prevented participation in an interview, or inability to provide informed consent. Before data collection, the purpose and procedures of the study were explained to all participants, and written informed consent was obtained. Participants were assured that participation was voluntary, that they could withdraw from the study at any stage without any effect on their treatment, and that all data would remain confidential and anonymous.

2.2. Measures

Data were collected using a semi-structured, in-depth interview guide developed by the research team based on the study objectives and the phenomenological orientation of the research. The interview guide included open-ended questions designed to encourage participants to describe their lived experiences of health-related quality of life during chemotherapy in their own words. The main questions focused on participants’ perceptions of changes in physical health, fatigue, pain, nausea, body image, emotional well-being, fear of disease progression, family and social relationships, daily functioning, work and financial concerns, spirituality, coping strategies, and expectations from healthcare professionals. Examples of guiding questions included: “Can you describe how chemotherapy has affected your daily life?”, “How has your experience of breast cancer and chemotherapy changed your perception of your quality of life?”, “What physical, emotional, or social challenges have been most important for you during chemotherapy?”, and “What kinds of support have helped you maintain your well-being during treatment?” Probing questions were used when necessary to obtain deeper clarification, such as “Can you explain this experience more?”, “How did that situation affect you?”, and “What meaning did this experience have for you?” The interview guide was reviewed by experts in oncology nursing, qualitative research, and health psychology to ensure clarity, relevance, and coverage of the main domains of health-related quality of life.

In addition to the interview guide, a demographic and clinical information form was used to describe the characteristics of participants. This form included age, marital status, educational level, employment status, province of residence, time since diagnosis, cancer stage, type of chemotherapy regimen, number of chemotherapy cycles received, history of surgery or radiotherapy, and presence of comorbid conditions. Field notes were also used as a supplementary data collection tool. During and immediately after each interview, the researcher recorded observations related to participants’ emotional expressions, pauses, tone of voice, nonverbal reactions, and contextual details that could assist in interpreting the meaning of the narratives. Interviews were conducted individually in a private room at the oncology center or through a secure online platform according to participants' preference and physical condition. Each interview lasted approximately 45 to 75 minutes and was audio-recorded with permission. All interviews were transcribed verbatim, and identifying information was removed from the transcripts to protect confidentiality.

2.3. Data Analysis

Data analysis was conducted using Colaizzi's phenomenological method to extract the essential meanings of participants' lived experiences. First, all interview transcripts were read several times to obtain a general understanding of the participants' narratives and to become immersed in the data. Then, significant statements directly related to health-related quality of life during chemotherapy were identified and extracted from each transcript. These statements were carefully examined to formulate meanings that reflected the participants' experiences while remaining faithful to their original descriptions. The formulated meanings were compared across interviews and grouped into clusters of related meanings. These clusters were then organized into broader themes and subthemes representing the core dimensions of women's health-related quality of life during chemotherapy. Throughout the analysis, the research team moved repeatedly between the raw data, formulated meanings, and emerging themes to ensure that the final thematic structure accurately reflected participants' experiences.

To enhance the rigor and trustworthiness of the analysis, several strategies were used. Credibility was supported through prolonged engagement with the data, repeated reading of transcripts, member checking with selected participants, and peer review by qualitative research experts. Dependability was strengthened by maintaining an audit trail that documented all stages of data collection, coding, theme development, and analytic decision-making. Confirmability was addressed through reflexive memo writing, in which the researchers recorded their assumptions, interpretations, and potential biases during the research process. Transferability was supported by providing a detailed description of the study context, sampling strategy, participant characteristics, and data collection procedures so that readers can judge the applicability of the findings to similar clinical and cultural contexts. Data management and coding were supported using qualitative data analysis software, while final interpretation remained grounded in the researchers' close engagement with the transcripts. The analysis continued until a coherent thematic description of the phenomenon was developed, capturing the essential structure of health-related quality of life among women with breast cancer undergoing chemotherapy in Canada.

3. Findings and Results

The final sample consisted of 22 women with breast cancer who were undergoing chemotherapy in oncology treatment centers in Canada. The participants' ages ranged from 31 to 67 years, with a mean age of 49.36 years and a standard deviation of 8.72 years. Most participants were married or living with a partner, while others were single, divorced, or widowed. In terms of educational status, participants represented a diverse range of backgrounds, including high school diploma, college education, undergraduate degree, and postgraduate education. Regarding employment status, some participants continued working with reduced hours or flexible arrangements, whereas others had taken medical leave or had stopped working because of treatment-related limitations. Clinically, the time since diagnosis ranged from 2 to 18 months. Eleven participants were diagnosed with stage II breast cancer, eight with stage III disease, and three with stage I disease. All participants had received at least two chemotherapy sessions at the time of interview, and the number of chemotherapy cycles completed ranged from 2 to 7. Twelve participants had undergone breast surgery before chemotherapy, including lumpectomy or mastectomy, and seven participants reported that radiotherapy had already been planned as part of their treatment pathway. The interviews lasted between 45 and 75 minutes. Data saturation was reached after the twentieth interview, and two additional interviews were conducted to confirm the stability and completeness of the extracted themes.

Table 1

Main Themes, Subthemes, and Core Meanings of Health-Related Quality of Life Among Women With Breast Cancer Undergoing Chemotherapy

Main theme	Subthemes	Core meaning	Participants contributing
Embodied disruption and treatment burden	Fatigue and bodily exhaustion; nausea and appetite disturbance; pain, neuropathy, and physical discomfort; sleep disruption; loss of bodily predictability	Chemotherapy was experienced as a profound disruption of the body, in which participants felt that their physical capacity, daily rhythm, and sense of bodily control had been altered by treatment.	22
Altered identity, femininity, and body image	Hair loss and visible illness; changes in breast and body perception; loss of attractiveness; tension between survival and femininity; concealment and exposure	Participants described breast cancer and chemotherapy as experiences that affected not only the diseased body but also personal identity, femininity, self-image, and the way they wished to be seen by others.	19
Emotional vulnerability and existential uncertainty	Fear of recurrence or progression; anxiety before treatment sessions; sadness and emotional exhaustion; confrontation with mortality; hope and psychological endurance	Health-related quality of life was shaped by continuous emotional fluctuation, in which fear, uncertainty, sadness, and hope coexisted throughout the treatment process.	21
Relational reorganization and social dependence	Family caregiving; changes in marital and parental roles; social withdrawal; need for understanding; burden of being supported	Chemotherapy reorganized participants' relationships by increasing dependence on others, changing household and family roles, and making social support both essential and emotionally complex.	20
Preserving normality, meaning, and control	Maintaining routines; spiritual and personal meaning-making; information-seeking; self-care strategies; trust in healthcare professionals	Participants attempted to preserve quality of life by reconstructing normality, finding meaning in the illness experience, relying on supportive care, and developing strategies to regain a sense of control.	18

The analysis of the interview data resulted in five main themes that together represented the essential structure of health-related quality of life among women with breast cancer undergoing chemotherapy. These themes showed that participants did not experience quality of life as a single or stable condition, but as a changing and multidimensional phenomenon shaped by bodily symptoms, emotional responses, social relationships, identity changes, and efforts to preserve meaning and control. The theme of embodied disruption and treatment burden was the most pervasive and was present in all interviews, indicating that physical symptoms were the primary and most immediate way through which chemotherapy affected daily life. However, participants' accounts also showed that physical deterioration could not be separated from emotional vulnerability, altered identity, and relational changes. For many women, fatigue, nausea, hair loss, and pain were not only medical side effects but also experiences that changed their sense of independence, femininity, privacy, and future expectations. The findings further indicated that women actively attempted to protect their quality of life through coping strategies, spiritual reflection, maintaining ordinary routines, seeking information, and relying on family and healthcare professionals.

Table 2

Physical and Functional Experiences Affecting Health-Related Quality of Life During Chemotherapy

Experiential dimension	Recurrent codes	Effect on health-related quality of life	Representative quotation
Persistent fatigue	Loss of energy; inability to complete household tasks; need for prolonged rest; reduced stamina	Fatigue limited participants' physical independence and created a sense of frustration because ordinary activities required planning, assistance, or complete avoidance.	"It was not just being tired. It was like my body had no reserve left. Even walking from the bedroom to the kitchen felt like a task."
Nausea and appetite disturbance	Food aversion; metallic taste; smell sensitivity; reduced pleasure in eating; weight fluctuation	Eating changed from a normal source of pleasure and social connection into a difficult and sometimes distressing activity, reducing physical comfort and emotional well-being.	"Food became something I had to manage, not something I enjoyed. The smell of things I used to love made me feel sick."
Pain and neuropathy	Joint pain; burning or tingling sensations; numbness in hands and feet; discomfort after infusion	Pain and neuropathy interfered with sleep, mobility, writing, cooking, and personal care, making participants more aware of bodily vulnerability.	"My fingers felt strange and numb. I could still do things, but everything reminded me that my body was not the same."

Sleep disturbance	Difficulty falling asleep; waking during the night; steroid-related restlessness; anxious thoughts at bedtime	Poor sleep intensified fatigue, irritability, and emotional distress and reduced participants' ability to cope with treatment days.	"At night my body was exhausted, but my mind would not stop. The less I slept, the harder the next day became."
Reduced daily functioning	Dependence on others; interruption of work; inability to maintain previous routines; decreased household participation	Functional limitations threatened participants' sense of autonomy and produced guilt, especially among women who had previously been caregivers for others.	"I was used to taking care of everyone. Suddenly I had to ask people to drive me, cook for me, and even remind me to rest."

The physical and functional experiences reported by participants demonstrated that chemotherapy affected health-related quality of life through both direct symptoms and the limitations those symptoms imposed on everyday life. Fatigue was described as the most dominant and disabling treatment-related experience. Participants distinguished chemotherapy-related fatigue from ordinary tiredness and emphasized that it was unpredictable, deep, and resistant to rest. Nausea, appetite disturbance, altered taste, and sensitivity to smell affected nutritional habits and reduced the pleasure of shared meals, which many participants previously associated with family life and normality. Pain, neuropathy, and physical discomfort created additional functional restrictions, particularly in tasks requiring fine motor skills, mobility, and sustained attention. Sleep disruption intensified these physical symptoms and contributed to emotional exhaustion. Overall, this table shows that physical quality of life was experienced not simply as the presence or absence of symptoms, but as the extent to which women could continue to participate in daily routines, preserve autonomy, maintain work and family roles, and feel some continuity with their pre-treatment body.

Table 3

Emotional, Existential, and Identity-Related Dimensions of the Chemotherapy Experience

Main area	Subtheme	Description of lived experience	Representative quotation
Emotional vulnerability	Anticipatory anxiety before chemotherapy	Participants often experienced anxiety before each chemotherapy session because they associated treatment days with physical suffering, uncertainty, and loss of control.	"The day before chemo was always the worst. I knew what was coming, but I also never knew exactly how bad it would be."
Emotional vulnerability	Fear of recurrence and progression	Fear was not limited to the present treatment period; participants worried about whether the cancer would return, spread, or permanently change their future.	"Even when the doctors said the treatment was going well, part of me kept asking, what if it comes back?"
Existential uncertainty	Confrontation with mortality	Several participants described breast cancer as the first serious moment in which they directly considered death, unfinished responsibilities, and the fragility of life.	"I had never thought of myself as someone who could die young. Cancer made that thought very real."
Body image and femininity	Hair loss as visible illness	Hair loss was experienced as one of the most emotionally difficult side effects because it made the illness visible and reduced participants' control over how others perceived them.	"When my hair started falling out, I felt like I could no longer decide who knew I was sick. My body announced it for me."
Body image and femininity	Changed perception of the breast and body	Participants who had undergone surgery or expected surgery described changes in body image, femininity, sexual confidence, and bodily familiarity.	"I was grateful to be treated, but I also had to learn to look at my body differently. It felt like grief and gratitude together."
Psychological endurance	Hope and inner strength	Despite fear and sadness, many participants described hope as an active effort to continue treatment, protect family life, and imagine recovery.	"Hope was not always a feeling. Sometimes it was just deciding to go to the next appointment."

The emotional and identity-related findings showed that chemotherapy was experienced as a deeply psychological and existential event. Participants' emotional quality of life was shaped by repeated cycles of fear, waiting, treatment, symptom recovery, and preparation for the next chemotherapy session. Anxiety was particularly intense before infusion days, when participants anticipated the return of fatigue, nausea, pain, and emotional instability. Fear of recurrence or disease progression remained present even when participants reported trust in their medical team, suggesting that clinical reassurance did not completely remove existential uncertainty. Body image emerged as a major component of health-related quality of life. Hair loss, surgical scars, changes in the breast, weight fluctuation, and visible signs of illness altered participants' relationship with their bodies and affected femininity, attractiveness, privacy, and self-confidence. However, the findings also showed that participants were not passive recipients of distress. Many described psychological endurance, hope, and determination as active processes through which they continued treatment, protected family relationships, and tried to maintain a future-oriented perspective.

Table 4

Relational, Social, and Supportive Factors Shaping Health-Related Quality of Life

Relational or supportive factor	Positive contribution to quality of life	Negative or complex experience	Representative quotation
Family support	Emotional reassurance; transportation to treatment; help with meals, childcare, and household responsibilities	Feelings of guilt, loss of independence, and worry about burdening family members	“My family helped me with everything, but sometimes that made me feel guilty because I was used to being the strong one.”
Partner relationship	Companionship, practical support, emotional security, and shared decision-making	Changes in intimacy, communication difficulties, fear of being seen differently, and emotional distance in some cases	“My husband was supportive, but I could feel that we were both scared and sometimes neither of us knew how to talk about it.”
Parenting role	Motivation to continue treatment and remain emotionally present for children	Distress over reduced energy, inability to maintain previous parenting routines, and fear of children witnessing suffering	“My children gave me a reason to keep going, but it hurt when I could not be the mother I used to be.”
Friends and social networks	Encouragement, distraction, companionship, and reduced isolation	Social withdrawal, discomfort with pity, difficulty explaining treatment, and loss of contact with some friends	“Some friends were wonderful, but with others I felt I had to explain too much, so I stopped answering messages.”
Healthcare professionals	Trust, information, symptom management, emotional reassurance, and sense of safety during treatment	Insufficient time for questions, fragmented information, and feeling reduced to a diagnosis when communication was rushed	“When the nurse explained what was happening, I felt calmer. When things were rushed, I felt like I was just another patient.”
Peer support from other women with breast cancer	Feeling understood, normalization of symptoms, practical advice, and emotional validation	Fear when hearing difficult stories from others and comparison with patients in worse condition	“Talking to another woman who had gone through it helped because she understood things I did not have to explain.”

The relational findings indicated that health-related quality of life during chemotherapy was strongly shaped by the quality, availability, and emotional meaning of support. Family support was central for most participants and included transportation, cooking, household management, childcare, and emotional presence. However, receiving support was not always experienced as simple relief. Many participants described guilt, embarrassment, or sadness because they had previously identified themselves as independent, capable, and responsible for caring for others. Partner relationships were also affected by chemotherapy, particularly when changes in body image, fatigue, sexual confidence, and emotional fear altered intimacy or communication. For participants with children, motherhood became both a source of strength and a source of distress; children motivated women to continue treatment, but reduced parenting capacity intensified feelings of loss and inadequacy. Social relationships outside the family varied considerably. Some friends provided meaningful emotional support, while others withdrew, minimized the illness, or responded with excessive pity, leading participants to limit contact. Healthcare professionals played an important role in restoring a sense of safety and control, especially when they provided clear information, respectful communication, and symptom management. Peer support was uniquely valuable because it allowed participants to feel understood without excessive explanation, although exposure to others’ difficult illness trajectories sometimes increased fear.

Table 5

Coping Strategies, Meaning-Making Processes, and Preserved Sources of Quality of Life

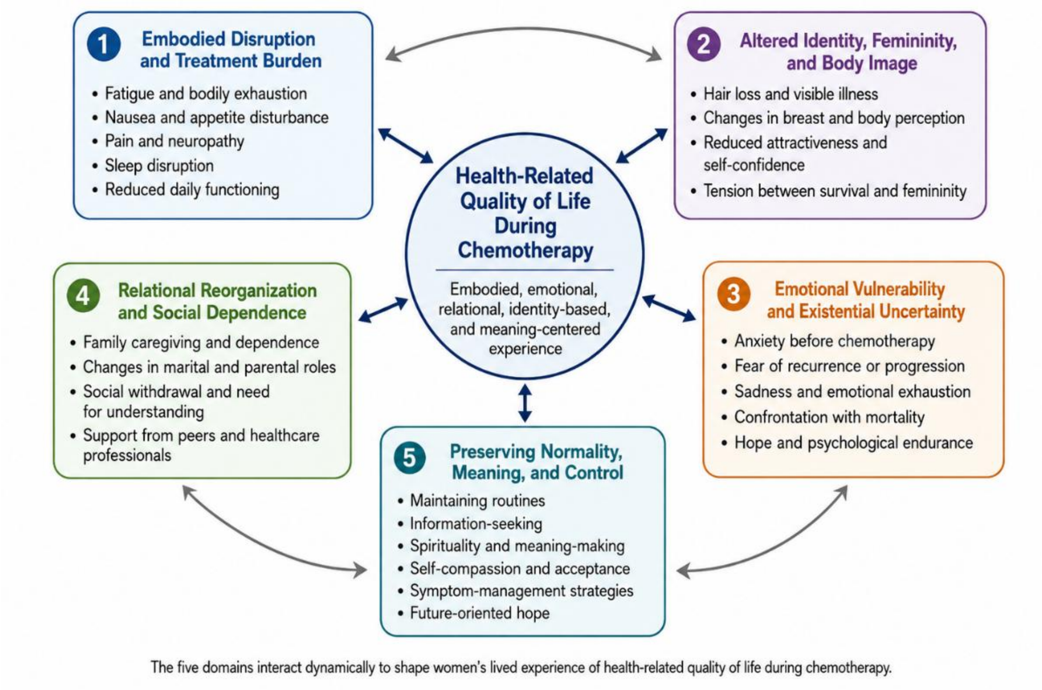
Coping and meaning-making process	Manifestation in participants’ narratives	Contribution to quality of life	Representative quotation
Maintaining ordinary routines	Continuing small household activities, walking, dressing normally, reading, cooking when possible, and preserving familiar daily rhythms	Helped participants feel that life had not been completely taken over by cancer and chemotherapy	“Even making tea for myself felt important because it reminded me that I was still me.”

Selective information-seeking	Asking healthcare professionals questions, reading reliable sources, avoiding frightening online stories, and preparing for side effects	Reduced uncertainty and supported a sense of control over treatment and symptoms	"Information helped when it came from the right place. Too much searching online made me more afraid."
Spiritual and existential reflection	Prayer, gratitude, reflection on life priorities, acceptance, and reevaluation of relationships and time	Provided emotional grounding and helped participants tolerate uncertainty and suffering	"I started thinking differently about time, people, and what actually matters. That helped me survive the difficult days."
Self-compassion and acceptance	Allowing rest, reducing self-blame, accepting help, and adjusting expectations	Reduced guilt and helped participants adapt to temporary or permanent changes in functioning	"I had to learn that resting was not weakness. It was part of healing."
Symptom-management strategies	Planning activities around treatment cycles, hydration, light physical activity, anti-nausea routines, and pacing energy	Improved functional capacity and made symptoms feel more manageable	"I learned which days were bad and which days I could do more. Planning around that made life easier."
Future-oriented hope	Imagining recovery, planning after treatment, focusing on family milestones, and trusting the treatment process	Sustained motivation to continue chemotherapy despite distress and uncertainty	"I kept thinking about the day treatment would finish. That picture helped me get through each cycle."

The coping-related findings showed that participants attempted to preserve quality of life by actively reconstructing control, meaning, and normality within the constraints of chemotherapy. Maintaining ordinary routines was particularly important because even small activities, such as preparing tea, walking briefly, dressing in preferred clothing, or participating in family conversations, allowed participants to feel connected to their previous identity. Information-seeking was another important strategy, although participants distinguished between helpful and harmful information. Clear explanations from healthcare professionals reduced uncertainty, while excessive online searching often intensified fear. Spirituality and existential reflection helped many participants reinterpret the illness experience, clarify personal priorities, and tolerate uncertainty. Self-compassion emerged as a gradual process through which women learned to rest, accept help, and reduce guilt about temporary dependence. Practical symptom-management strategies, including pacing, hydration, medication routines, and planning around chemotherapy cycles, contributed to functional adaptation. Future-oriented hope was not described as naïve optimism, but as a deliberate psychological resource that helped participants continue treatment despite fear, bodily discomfort, and emotional exhaustion.

Figure 1

Phenomenological Structure of Health-Related Quality of Life Among Women With Breast Cancer Undergoing Chemotherapy



The five domains interact dynamically to shape women's lived experience of health-related quality of life during chemotherapy.

The conceptual structure represented in Figure 1 illustrates that health-related quality of life among women with breast cancer undergoing chemotherapy was formed through the interaction of five interconnected experiential domains: bodily disruption, emotional vulnerability, altered identity, relational reorganization, and efforts to preserve meaning and control. At the center of the structure is the lived body, because participants first encountered chemotherapy through physical symptoms such as fatigue, nausea, pain, neuropathy, sleep disturbance, and reduced functional capacity. These bodily experiences then extended into psychological and social domains by influencing mood, self-image, independence, family roles, intimacy, parenting, and participation in everyday life. Emotional vulnerability and existential uncertainty surrounded the entire treatment experience, as fear of recurrence, anxiety before chemotherapy, sadness, and confrontation with mortality shaped participants' interpretation of their illness. At the same time, quality of life was not defined only by suffering or loss. Participants actively reconstructed meaning through support, spirituality, self-compassion, treatment knowledge, future-oriented hope, and small routines that preserved a sense of normality. Therefore, the overall phenomenological structure indicates that health-related quality of life during chemotherapy is dynamic, relational, embodied, and meaning-based, rather than limited to symptom severity alone.

4. Discussion

The present phenomenological study explored the lived experiences of health-related quality of life among women with breast cancer undergoing chemotherapy in Canada. The findings revealed that health-related quality of life was not experienced as a single clinical outcome or a stable state, but as a dynamic, embodied, emotional, relational, identity-based, and meaning-centered phenomenon. Five main themes were extracted from the participants' narratives: embodied disruption and treatment burden; altered identity, femininity, and body image; emotional vulnerability and existential uncertainty; relational reorganization and social dependence; and preserving normality, meaning, and control. These themes demonstrate that chemotherapy affects women's quality of life through multiple interacting pathways. Physical symptoms such as fatigue, nausea, appetite disturbance, pain, neuropathy, sleep disruption, and reduced daily functioning formed the most immediate layer of the experience, but these bodily changes were inseparable from emotional distress, altered self-perception, family role changes, social dependence, and efforts to reconstruct a sense of control. This finding is consistent with previous research indicating that health-related quality of life in women with breast cancer is multidimensional and must be understood through physical, psychological, functional, sexual, social, and disease-specific domains rather than through clinical indicators alone (Clarijs et al., 2021; Coelho et al., 2023; Salas et al., 2021).

The first major finding of this study was that chemotherapy was experienced as an embodied disruption that altered participants' physical capacity, bodily predictability, and functional independence. Fatigue was described as deep, persistent, and qualitatively different from ordinary tiredness, while nausea, appetite changes, sleep problems, pain, and neuropathy affected ordinary routines and reduced women's ability to maintain work, household responsibilities, and self-care. This finding aligns with recent evidence showing that fatigue and reduced muscle strength are central quality-of-life concerns among women with breast cancer undergoing chemotherapy or hormonal therapy (Silva et al., 2025). It is also consistent with research demonstrating that symptom burden is strongly related to health-related quality of life among women recently diagnosed with breast cancer (Safar & Mazanec, 2023). The present study extends these findings by showing how physical symptoms are lived not merely as isolated side effects but as disruptions to autonomy, time, identity, and daily rhythm. Participants did not describe fatigue only as a bodily sensation; rather, they experienced it as a loss of reliability in their own bodies, which forced them to plan around treatment cycles, reduce activities, ask for help, and redefine what counted as a successful day. Similar concerns have been reflected in studies on disease acceptance and quality of life before and after neoadjuvant chemotherapy, which indicate that treatment-related burden influences women's psychological adaptation as well as their physical functioning (Konieczny et al., 2025).

The findings also showed that bodily changes during chemotherapy had strong implications for body image, femininity, and personal identity. Hair loss, changes in breast and body perception, surgical scars, weight changes, and visible signs of illness made participants feel that their bodies had become unfamiliar and publicly marked by cancer. For many women, hair loss was especially distressing because it reduced control over illness disclosure and made the diagnosis visible to others. This result is strongly supported by previous research on chemotherapy-induced alopecia distress, body image, and psychosocial well-being among breast cancer patients, which emphasizes that hair loss has emotional and identity-related consequences beyond its physical manifestation (Naeem et al., 2023). The present findings are also consistent with studies showing that body image and sexual quality of life are deeply affected in women with breast cancer (Brajković et al., 2024; Brajković et al., 2021). Participants' narratives showed that femininity was not simply "lost" or "preserved," but negotiated in relation to survival, bodily change, intimate relationships, and self-recognition. This supports prior work indicating that sexual health, body image, and intimate functioning are important but often underrecognized aspects of quality of life in breast cancer care (Fitz et al., 2023; Smedsland et al., 2023; Tounkel et al., 2022). The findings further correspond with evidence that eating behavior and body image are connected in women with breast cancer, as treatment may change appetite, weight, self-perception, and emotional comfort with the body (Sara Maria Moreira Lima et al., 2021).

Another important finding was the central role of emotional vulnerability and existential uncertainty. Participants described anxiety before chemotherapy sessions, fear of recurrence or progression, sadness, emotional exhaustion, and direct confrontation with mortality. These emotional experiences were not episodic reactions but recurring states that accompanied the treatment process. The pattern of fear before chemotherapy, temporary relief after completing a cycle, and renewed anxiety before the next session suggests that quality of life during chemotherapy is cyclical and anticipatory. This finding is consistent with studies showing that psychological burden predicts quality of life among women with breast cancer (Perveen et al., 2023) and that oncological treatment has substantial socio-emotional effects (Gică et al., 2024). At the same time, participants described hope, inner strength, and treatment perseverance as important psychological resources. This is aligned with studies validating hope-related measures among women with breast cancer and emphasizing the adaptive value of future-oriented thinking in the cancer experience (Vakili et al., 2022). Similarly, studies on coping with stress among women diagnosed with breast cancer indicate that coping strategies are central to women's adjustment to diagnosis and treatment (Wypych-Ślusarska et al., 2025). The present study adds that hope during chemotherapy is not always experienced as optimism or emotional positivity; rather, it may be enacted as endurance, treatment attendance, emotional self-regulation, and the decision to continue despite uncertainty.

The relational dimension of health-related quality of life was another prominent finding. Participants' narratives showed that chemotherapy reorganized family, marital, parental, and social relationships. Family members often provided practical and emotional support, including transportation, cooking, childcare, household management, and presence during treatment. However, support was also emotionally complex because many women felt guilty about becoming dependent or feared becoming a burden. This finding is compatible with studies showing that breast cancer affects not only patients but also caregivers and family systems (Clarijs et al., 2022). The effect of cancer on family life was especially visible among participants who were mothers, as they described the tension between wanting to protect children and being unable to maintain previous levels of parental energy and availability. Prior research showing reduced psychosocial well-being among children of women with early-onset breast cancer reinforces the importance of understanding breast cancer as a family-level experience rather than an individual medical condition alone (Schliemann et al., 2023). The participants' experiences of dependence, role change, and social withdrawal also help explain why patient-reported experience measures are essential in breast cancer care; such measures can reveal burdens that may not be visible through clinical assessment alone (Coelho et al., 2023).

The study further found that healthcare professionals and peer support played important roles in shaping women's quality of life. Participants reported feeling safer and more in control when nurses and physicians provided clear explanations, answered questions, normalized symptoms, and responded respectfully to concerns. Conversely, rushed communication or fragmented information intensified uncertainty and made some women feel reduced to a diagnosis. This finding supports the need for standardized and patient-centered approaches to measuring and responding to quality of life in breast cancer care (Clarijs et al., 2021). It also corresponds with evidence that disease-specific and generic tools capture different dimensions of quality of life, suggesting that clinical communication should be informed by both structured assessment and individualized patient narratives (Isah et al., 2024; Jang et al., 2022). Participants' appreciation of peer support also demonstrates the value of shared understanding, because other women with breast cancer could validate symptoms and emotions without requiring lengthy explanation.

However, peer contact was sometimes ambivalent, particularly when exposure to others' severe experiences increased fear. This complexity highlights the need for carefully facilitated peer support systems that provide emotional validation without overwhelming patients.

The fifth theme, preserving normality, meaning, and control, showed that women were actively engaged in protecting quality of life despite treatment burden. Participants maintained small routines, practiced selective information-seeking, used symptom-management strategies, accepted help, engaged in spiritual reflection, and focused on future-oriented hope. This finding is compatible with research on coping strategies among women diagnosed with breast cancer (Wypych-Ślusarska et al., 2025), quality of life and disease acceptance during chemotherapy (Konieczny et al., 2025), and life attitude assessment in women with breast cancer (Zhou et al., 2024). Participants' use of information-seeking also reflects the potential value of supportive technologies and mobile health interventions, which have been studied as tools for improving quality of life among cancer patients (Bunevičienė et al., 2021). Furthermore, the significance of supportive interventions is consistent with research on interventions targeting fatigue, anxiety, and quality of life among women with advanced breast cancer (Marcondes et al., 2025). The present study suggests that even modest forms of control, such as planning around chemotherapy cycles, maintaining daily rituals, managing symptoms proactively, or choosing when to talk about cancer, may have substantial meaning for women's quality of life.

The findings should also be interpreted in relation to the broader breast cancer treatment continuum. Some participants had undergone surgery or expected radiotherapy, and their chemotherapy experiences were shaped by previous or anticipated treatment-related body changes. Prior research on mastectomy has shown that breast cancer surgery can affect both quality of life and mental health (Kennedy et al., 2023), while studies of breast reconstruction indicate that satisfaction and quality of life after reconstruction are connected to body image, psychosocial adjustment, and perceived restoration (Alghamdi et al., 2024). Although the present study focused on chemotherapy, participants' accounts confirm that women do not experience treatments as separate clinical episodes. Instead, chemotherapy is integrated into a broader illness trajectory that may include diagnosis, surgery, systemic therapy, radiotherapy, reconstruction, endocrine treatment, follow-up, and fear of recurrence. Studies on quality of life during radiotherapy and among women in diverse cultural contexts further support the conclusion that quality of life must be understood across treatment phases and social settings (Islam et al., 2022; Jonatas Gomes Barbosa da et al., 2022; Smail et al., 2022). Financial and occupational concerns reported by some participants also resonate with broader literature on the financial toxicity of cancer care, even though the Canadian context may differ from settings where direct treatment costs are more severe (Donkor et al., 2022).

5. Conclusion

Overall, the findings of this study support a holistic understanding of health-related quality of life among women with breast cancer undergoing chemotherapy. Chemotherapy-related quality of life was formed through the interaction of physical symptoms, emotional uncertainty, altered body image, sexual and feminine identity, family and social relationships, healthcare communication, and meaning-making processes. Previous studies have documented many of these domains separately, including physical symptoms, fatigue, sexual health, body image, psychological burden, coping, sleep quality, nutrition, and patient-reported outcomes (Ferreira et al., 2022; Kuang et al., 2024; ŞAhİN, 2023; Tamam et al., 2021). The contribution of the present phenomenological study is that it integrates these dimensions into a lived structure, showing how women experience quality of life as an interdependent and changing process rather than as a set of isolated domains. This has important implications for oncology care because improving quality of life requires more than symptom control. It requires attention to women's meanings, fears, bodily self-perception, family roles, sexuality, autonomy, information needs, and strategies for preserving normality throughout chemotherapy.

6. Limitations & Suggestions

This study has several limitations. First, the qualitative phenomenological design allowed in-depth exploration of lived experience but does not permit statistical generalization to all women with breast cancer undergoing chemotherapy. Second, participants were recruited from oncology treatment centers in Canada, and their experiences may differ from women in other healthcare systems, cultural contexts, rural settings, or countries with different access to cancer care and supportive services. Third, the study relied on self-reported narratives, and participants' accounts may have been influenced by emotional state, time since diagnosis, treatment stage, or willingness to disclose sensitive experiences such as sexuality, body image, fear, or family strain. Fourth, although maximum variation sampling was used, the sample size was limited and may not fully represent the experiences of women from all ethnic, socioeconomic, linguistic, and age groups. Finally, because interviews were conducted during active chemotherapy, the findings primarily reflect experiences within the treatment period and may not capture how quality of life changes during long-term survivorship.

Future research should examine the lived experiences of health-related quality of life among larger and more diverse groups of women with breast cancer, including women from different provinces, minority communities, rural regions, immigrant populations, and varied socioeconomic backgrounds. Longitudinal qualitative studies are recommended to follow women from diagnosis through chemotherapy, surgery, radiotherapy, endocrine therapy, and survivorship in order to understand how meanings of quality of life change over time. Future studies should also explore the experiences of younger women, mothers of dependent children, single women, older adults, and women with metastatic disease as distinct groups with potentially different needs. Mixed-methods studies could combine standardized quality-of-life instruments with qualitative interviews to connect measurable outcomes with lived meanings. In addition, future research should include partners, children, caregivers, nurses, and oncology professionals to provide a more comprehensive understanding of how breast cancer chemotherapy affects family systems and care relationships.

The findings suggest that oncology care should address health-related quality of life as a multidimensional and lived experience rather than as a secondary outcome. Healthcare professionals should routinely assess fatigue, nausea, pain, neuropathy, sleep problems, emotional distress, body image concerns, sexual health, family role changes, and practical needs during chemotherapy. Nurses and physicians should provide clear, repeated, and individualized information before and during treatment, because uncertainty was a major source of distress for participants. Supportive care should include psychological counseling, body image support, sexual health consultation, peer support, caregiver guidance, and symptom-management education. Clinicians should also normalize women's feelings of dependency, guilt, fear, and identity disruption, while helping them preserve meaningful routines and realistic forms of control. Patient-centered chemotherapy care should therefore integrate medical treatment with emotional, relational, functional, and existential support throughout the treatment trajectory.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

All authors equally contributed to this article.

References

Alghamdi, H., Alhefdhi, A., Fayi, K. A., Alshaalan, S., Alsuhaim, A., Almutairi, R. H., Alkilani, N., Aolayan, H., & Awad, M. R. (2024). The Satisfaction and Quality of Life of Patients After Breast Reconstruction. *Annals of Plastic Surgery*, *93*(4), 425-429. https://doi.org/10.1097/sap.0000000000004040

Brajković, L., Korać, D., Jelić, K., & Kopilaš, V. (2024). Sexual Quality of Life and Body Image of Breast Cancer Patients: Uncovering the Meaning Behind the Symptoms. *Psicooncología*, *21*(1), 23-36. https://doi.org/10.5209/psic.94810

Brajković, L., Sladić, P., & Kopilaš, V. (2021). Sexual Quality of Life in Women With Breast Cancer. *Health Psychology Research*, *9*(1), 1. https://doi.org/10.52965/001c.24512

Bunevičienė, I., Mekary, R. A., Smith, T. R., Onnela, J. P., & Bunevičius, A. (2021). Can mHealth Interventions Improve Quality of Life of Cancer Patients? A Systematic Review and Meta-Analysis. *Critical Reviews in Oncology/Hematology*, *157*, 103123. https://doi.org/10.1016/j.critrevonc.2020.103123

Clarijs, M. E., Oemrawsingh, A., Bröker, M., Verhoef, C., Lingsma, H. F., & Koppert, L. B. (2022). Quality of Life of Caregivers of Breast Cancer Patients: A Cross-Sectional Evaluation. *European Journal of Surgical Oncology*, *48*(2), e62. https://doi.org/10.1016/j.ejso.2021.12.044

Clarijs, M. E., Thurell, J., Kühn, F., Groot, C. A. U., Hedayati, E., Karsten, M. M., Jager, A., & Koppert, L. B. (2021). Measuring Quality of Life Using Patient-Reported Outcomes in Real-World Metastatic Breast Cancer Patients: The Need for a Standardized Approach. *Cancers*, *13*(10), 2308. https://doi.org/10.3390/cancers13102308

Coelho, A., Kendir, C., Barrenho, E., Klazinga, N., Paiva, C., Sousa, J. A. d., Gonçalves-Monteiro, S., Redondo, P., Bastos, A. R., Nogueira, A., Guedes, F. B., Costa, A., & Gaspar, T. (2023). Patient-Reported Outcomes and Experiences Assessment in Women With Breast Cancer: Portuguese Case Study. *International journal of environmental research and public health*, *20*(4), 2931. https://doi.org/10.3390/ijerph20042931

Donkor, A., Atuwo-Ampoh, V. D., Yakanu, F., Torgbenu, E. L., Ameyaw, E. K., Kitson-Mills, D., Vanderpuye, V., Kyei, K. A., Anim-Sampong, S., Khader, O., & Khader, J. (2022). Financial Toxicity of Cancer Care in Low- And Middle-Income Countries: A Systematic Review and Meta-Analysis. *Supportive Care in Cancer*, *30*(9), 7159-7190. https://doi.org/10.1007/s00520-022-07044-z

Ferreira, I. S., Fernandes, A. F. C., Régia Christina Moura Barbosa, C., Bezerra, A. R., & Yanez, R. J. V. (2022). Telenursing in the Sexual Function of Women With Breast Cancer: A Study Protocol. *Medicine*, *101*(47), e31449. https://doi.org/10.1097/md.0000000000031449

Fitz, V. W., Anderson, C., Manuck, T. A., Mersereau, J. E., Bensen, J. T., Park, J., & Nichols, H. B. (2023). Patient-Reported Sexual Function Among Young Adult Cancer Survivors. *Journal of Adolescent and Young Adult Oncology*, *12*(4), 512-519. https://doi.org/10.1089/jayao.2022.0079

Gică, N., Mustaţă, L., Peltecu, G., Botezatu, R., Iancu, G., Gheoca, G. D., Cigăran, R. G., & Iordăchescu, D. (2024). Evaluation of Quality of Life and Socio-Emotional Impact of Oncological Treatment Among Patients With Breast Cancer. *Journal of Medicine and Life*, *17*(3), 341-352. https://doi.org/10.25122/jml-2024-0238

Isah, A., Nwachuya, C. A., Amandi, N. C., Onyehalu, J. C., Umeh, A. U., Chima, U. E., Aniefuna, C. V., Ugwu, D. O., Idabor, C. C., Ekwueme, V. I., Onwuakpa, C. H., Ugochukwu, E. J., Ma'aji, H. U., Jackson, I. L., Dim, O. F., & Ukoha-Kalu, B. O. (2024). A Two-Tool Assessment of the Quality of Life of Patients With Breast Cancer Using Generic and Disease-Specific Tools in a Nigerian Teaching Hospital. *Journal of Oncology Pharmacy Practice*, *31*(6), 929-938. https://doi.org/10.1177/10781552241266574

Islam, K. F., Awal, A., Shaon, F. T. U., Hossain, M. B., Samson, A., Momo, J. S., Hasan, M., Hanif, A. A. M., Mahmud, I., & Mridha, M. K. (2022). Assessment of Quality of Life of Breast Cancer Patients Attending a Tertiary Hospital in Bangladesh. https://doi.org/10.1101/2022.12.02.22283032

Jang, M. K., Kim, S. H., Ko, Y. H., Han, J., Kim, S. Y., & Kim, S. (2022). Comparing Disease-Specific and Generic Quality of Life in Korean Breast Cancer Survivors Using the FACT-B and QLI: The Importance of Instrument Selection. *Integrative Cancer Therapies*, *21*. https://doi.org/10.1177/15347354221085491

Jonatas Gomes Barbosa da, S., Costa, D. T., Cavalcanti, I. D. L., Mariane Cajubá de Britto Lira, N., & Oliveira, D. A. d. (2022). Quality of Life in Women With Breast Cancer Under Radiotherapy. *Canadian OnCOlOgy nursing JOurnal*, *32*(2), 162-171. https://doi.org/10.5737/23688076322162171

Kennedy, S. H., Bekele, M., Berlin, N. L., Ranganathan, K., Hamill, J. B., Haileselassie, E., Oppong, J. K., Newman, L. A., & Momoh, A. O. (2023). A Prospective Evaluation of the Quality of Life and Mental Health Implications of Mastectomy Alone on Women in Sub-Saharan Africa. *Annals of Surgery Open*, *278*(5), e1080-e1086. https://doi.org/10.1097/sla.0000000000005891

Konieczny, M., Sawicka, J., Gąska, I., Kaczmar, E., Babuśka–Roczniak, M., & Bądziul, D. (2025). Health-Related Quality of Life and Disease Acceptance Among Women With Breast Cancer Pre- And Post-Neoadjuvant Chemotherapy. *Cancers*, *17*(3), 497. https://doi.org/10.3390/cancers17030497

Kuang, Y., Jing, F., Tang, L., Qiu, J., & Xing, W. (2024). Translation and Validation of the Chinese Version of the BCPT Eight Symptom Scale (BESS) in Patients With Breast Cancer. *Asia-Pacific Journal of Oncology Nursing*, *11*(5), 100449. https://doi.org/10.1016/j.apjon.2024.100449

Marcondes, L., Ferreira, P. M., Sawada, N. O., Chianca, T. C. M., Félix, J. V. C., Guimarães, P. R. B., & Kalinke, L. P. (2025). Effect of Laser Auriculotherapy on Quality of Life, Fatigue, and Anxiety in Women With Advanced Breast Cancer: Randomized Clinical Trial. *Healthcare*, *13*(2), 166. https://doi.org/10.3390/healthcare13020166

Naeem, Y., Qurat-ul-ain, A., Shafiq, M., & Zahra, S. (2023). Chemotherapy Induced Alopecia Distress, Body Image and Psychosocial Wellbeing Among Breast Cancer Patients: The Moderating Role of Locus of Control. *Review of Education Administration and Law*, *6*(2), 357-369. https://doi.org/10.47067/real.v6i2.339

Perveen, H., Ayyaz, S., Abbas, S., Sagur, M. K., Ali, R., & Mirza, M. H. (2023). Psychological Burden of Breast Cancer Predicted Quality of Life: A Case Study of Multan Institute of Nuclear Medicine and Radiology. *Bulletin of Business and Economics (BBE)*, *12*(3), 469-472. https://doi.org/10.61506/01.00055

Safar, H., & Mazanec, S. R. (2023). Relationship Between Symptom Burden and HRQOL Among Kuwaiti Women Recently Diagnosed With Breast Cancer: A Cross-Sectional Study. *Asian Pacific Journal of Cancer Prevention*, *24*(4), 1435-1441. https://doi.org/10.31557/apjcp.2023.24.4.1435

ŞAhİN, Y. Ç. (2023). An Investigation Into the Assessment of Nutritional Status, Quality of Life, and Adherence to the Mediterranean Diet Among Women Affected by Breast Cancer. *Journal of Contemporary Medicine*, *13*(5), 999-1007. https://doi.org/10.16899/jcm.1350836

Salas, M., Mordin, M., Castro, C., Islam, Z., Tu, N., & Hackshaw, M. D. (2021). Health-Related Quality of Life in Women With Breast Cancer: A Review of Measures. https://doi.org/10.21203/rs.3.rs-390540/v1

Sara Maria Moreira Lima, V., Mariana Nogueira Faco Franklin de, L., Costa, I. C. P., & Priscila Carmelita Paiva Dias Mendes, C. (2021). Eating Behavior and Body Image of Women With Breast Cancer. *Journal of Cancer Prevention & Current Research*, *12*(2), 57-63. https://doi.org/10.15406/jcpcr.2021.12.00455

Schliemann, A., Teroerde, A., Beurer, B., Hammersen, F., Fischer, D., Katalinic, A., Labohm, L., Strobel, A. M., & Waldmann, A. (2023). Reduced Psychosocial Well-Being Among the Children of Women With Early-Onset Breast Cancer. *Current Oncology*, *30*(12), 10057-10074. https://doi.org/10.3390/curroncol30120731

Silva, N. P., Marques, V. A., Ferreira-Júnior, J. B., Freitas-Júnior, R., & Vieira, C. A. (2025). Quality of Life, Fatigue, and Muscle Strength in Women With Breast Cancer Undergoing

Chemotherapy or Hormonal Therapy: A Case-Control Study. *Frontiers in Oncology*, *15*. https://doi.org/10.3389/fonc.2025.1553009

Smail, L., Jassim, G., Khan, S., Tirmazy, S. H., & Ameri, M. A. (2022). Quality of Life of Emirati Women With Breast Cancer. *International journal of environmental research and public health*, *20*(1), 570. https://doi.org/10.3390/ijerph20010570

Smedsland, S. K., Vandraas, K. F., Falk, R. S., Horn, J., Reidunsdatter, R. J., Kiserud, C. E., Dahl, A. A., Brekke, M., & Reinertsen, K. V. (2023). Sexual Health in Long-Term Breast Cancer Survivors: A Comparison With Female Population Controls From the HUNT Study. *Breast Cancer Research and Treatment*, *201*(3), 479-488. https://doi.org/10.1007/s10549-023-07021-y

Tamam, N., Almugren, K. S., Alrebdi, H. I., Sulieman, A., & Abdelbasset, W. K. (2021). Evaluating the Quality of Life and Sleep Quality in Saudi Women With Breast Cancer-Related Lymphedema: A Cross-Sectional Correlational Study. *Integrative Cancer Therapies*, *20*. https://doi.org/10.1177/15347354211046192

Tounkel, I., Nalubola, S., Schulz, A. M., & Lakhi, N. (2022). Sexual Health Screening for Gynecologic and Breast Cancer Survivors: A Review and Critical Analysis of Validated Screening Tools. *Sexual Medicine*, *10*(2), 100498-100498. https://doi.org/10.1016/j.esxm.2022.100498

Vakili, Y., Ghanbari, N., Nooripour, R., Mansournia, M. A., Ilanloo, H., & Matacotta, J. J. (2022). Validity of the Snyder's Adult Hope Scale (AHS) Among Iranian Women With Breast Cancer. *Archives of Breast Cancer*, 96-103. https://doi.org/10.32768/abc.20229196-103

Wypych-Ślusarska, A., Ociepka, S., Krupa-Kotara, K., Głogowska-Ligus, J., Oleksiuk, K., Słowiński, J., & Yanakieva, A. (2025). Ways of Coping With Stress in Women Diagnosed With Breast Cancer: A Preliminary Study. *Healthcare*, *13*(6), 609. https://doi.org/10.3390/healthcare13060609

Zhou, K., Wang, W., Ning, F., Wang, X., & Zhao, F. (2024). Reliability, Validity, and Sensitivity of the Chinese Life Attitude Self-rating Questionnaire for Breast Cancer. *Journal of Evaluation in Clinical Practice*, *31*(2). https://doi.org/10.1111/jep.14110