Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Challenges of Multiple Role Performance and Coping Strategies in Iranian Women with Breast Cancer: A Phenomenological Study

Nasrin Sarabi

nasinsaraby06@gmail.com

Dezful University of Medical Sciences

Research Article

Keywords: Breast Cancer, Women, Role, Qualitative Research

Posted Date: September 2nd, 2026

DOI: https://doi.org/10.21203/rs.3.rs-10408381/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Abstract

Background

Women with breast cancer assume various functional roles that may change following diagnosis. This transformation occurs at multiple levels and affects family life, self-care, and social and occupational activities. They employ diverse approaches to maintain their functional roles at home and in society. This phenomenological study was conducted to explore the challenges faced by women with breast cancer in performing their daily roles and the strategies they use to overcome these challenges.

Methods

This descriptive phenomenological study was conducted in 2026 among women with breast cancer referred to Imam Hassan Center in Dezful. Unstructured interviews were conducted with 12 women diagnosed with breast cancer.

Results

Integration tensions in multiple roles, with subcategories of functional limitations, role interference, and disruption in role performance, were among the issues that women with breast cancer encountered when attempting to fulfill multiple roles. It was also found that they managed individual resources and strived to maintain their roles.

Conclusions

Although these women face challenges in performing their daily roles, they learn how to live with these challenges in order to preserve their roles.

Background

Breast cancer is one of the major health problems worldwide, causing tumors in the mammary gland and disrupting the normal function of breast tissue. This cancer is predominantly diagnosed in women, with women being 100 times more susceptible to breast cancer than men [1]. Approximately one in nine women will develop breast cancer during their lifetime [2]. Although breast cancer incidence rates are higher in developed countries, Asian and African countries accounted for 63% of all deaths from this disease in 2020. In Iran, cancer incidence has risen from the fifth to the first rank over the past 28 years, reaching the top position in 2007. Currently, breast cancer is the most important and common malignancy among Iranian women. In Iran, one out of every 10 to 15 women is diagnosed with breast cancer [3].

On the other hand, although treatments have led to increased survival rates, this improvement has resulted in a growing number of patients who face disease-related problems and require continuous post-treatment care. Specifically, women with breast cancer encounter various problems and needs across multiple dimensions (physical, psychological, and social) [4].

It has been documented that Iranian patients undergoing breast cancer treatment face challenges such as reduced ability to perform daily activities, economic difficulties, inadequate insurance coverage, and high costs of chemotherapy drugs. Moreover, they experience psychological consequences including anxiety, stress, tension, depression, sexual dysfunction, and fatigue [5].

In addition to the above, it is important to recognize that these women have various functional roles that may change following a breast cancer diagnosis. This change occurs at different levels and affects family and self-care, as well as social, community, and occupational activities [6]. For instance, in many Asian countries, women are traditionally expected to care for their husbands and families, particularly to understand and support their spouses. In such cultural contexts, both men and women believe that a married woman should fulfill the roles of a good wife and a good mother. In this regard, the negative effects of breast cancer treatment cause many women to become limited or disabled in their daily activities and role-related duties, leading to feelings of shame toward their families [7]. Furthermore, women undergoing treatment may experience reduced sexual response, decreased desire for intimacy, and concerns about bodily changes [8], which can negatively impact their spousal roles. Women also often experience an inability to fulfill their parental roles [9]. The role of being a daughter is also affected by breast cancer and its treatments, as it impacts the responsibility of caring for parents [10]. In addition, chemotherapy is widely associated with prolonged sick leave. Treatments such as mastectomy, axillary lymph node surgery, hormone therapy, and radiotherapy are considered major barriers to returning to work. Moreover, in the early stages of breast cancer, fatigue and physical exhaustion prevent women from returning to work [11].

To mitigate these challenges, women with breast cancer typically employ a wide range of coping strategies, including problem-focused efforts, emotional regulation, and seeking instrumental and emotional support from family and friends [12, 13]. Some individuals attempt to hide their illness and normalize their presence at work [14]. Mothers also utilize self-management strategies, seek support from family, and rely on social support networks to compensate for their inability to care for children, striving to maintain a normal life [9]. Studies have shown that breast cancer patients who use active, problem-focused coping strategies and receive high levels of social support achieve better adaptation to their illness and higher health-related quality of life, indicating that these strategies enable them to maintain their functional roles at home and in society [12].

As noted, a woman may assume multiple roles in her daily life (motherhood, spousal role, being a daughter, employment, etc.). Various studies have been conducted that exclusively address the challenges and strategies for fulfilling one specific role in the daily lives of women with breast cancer. However, none of these studies have comprehensively examined their multiple roles in everyday family

and social life, the conflicts and problems that arise in this context, and how patients manage to perform these multiple roles.

According to the researcher's literature search, no qualitative study has been conducted on this topic. Qualitative research, rather than seeking causal relationships, is concerned with understanding the quality, context, and structure of experiences and aims to capture subjectivity and lived experiences [15]. Phenomenology as a qualitative method focuses on the study of lived experience or the life world. Phenomenology attends to the world as it is lived by an individual, rather than as a reality separate from human existence. It raises the question of what the lived experience is like, as phenomenology seeks to reveal meanings as they are lived in everyday life [16]. Therefore, this phenomenological study was conducted to explore the challenges faced by women with breast cancer in performing their daily roles and the strategies they use to overcome these challenges.

Methods

This qualitative study is a hermeneutic phenomenological study conducted at Imam Hassan Center in Dezful in 2026. The research population consisted of women diagnosed with breast cancer. Inclusion criteria included: women aged 20 to 60 years, diagnosed with primary breast cancer, cancer stage III to IV (including patients who had undergone surgery, chemotherapy, radiotherapy, or combination therapies), ability to speak/write in Persian, at least 6 months elapsed since the initiation of primary treatment at the time of interview, providing informed consent to participate in semi-structured interviews, and ability to provide a descriptive account of their family and social roles. Exclusion criteria included: presence of advanced disease (metastasis or progressive breast cancer), concurrent diagnosis of psychiatric or neurological disorders that would impair the ability to participate in interviews, and occurrence of a psychologically traumatic event that caused functional impairment (e.g., death of a loved one).

Purposeful sampling with maximum variation was employed. In qualitative research, generalization is not the goal; therefore, the statistical population is not defined in the same way as in quantitative studies [17]. In qualitative research, the aim is not merely to reach a certain number of participants, but to ensure that data collection yields rich and meaningful insights [18]. Sampling continued until data saturation was achieved. In other words, interviews continued until no new data or codes emerged in the last two interviews.

Data were collected using in-depth semi-structured interviews. Data were collected using in-depth semi-structured interviews. Before the data collection process, the researcher prepared the interview guidelines (Table 1). To deepen the interviews, probing questions were asked based on the information provided by participants, such as: “Could you explain that further?” and “Could you give me an example?” The interviews continued until data saturation was reached. All interviews were recorded after explaining the research objectives and obtaining participant consent. Interviews were transcribed verbatim as soon as possible. Each participant was assigned a code based on the chronological order of the interview.

The location and time of each interview were determined by mutual agreement between the researcher and participants. Interview duration ranged from 30 to 50 minutes.

Data analysis was performed using Colaizzi's seven-step method. This process includes seven stages: listening to the recorded interviews and transcribing participants' statements to understand their feelings and experiences; identifying significant statements related to the phenomenon under study; extracting significant statements and ensuring their accurate correspondence with the original transcripts; formulating meanings; clustering themes; developing an exhaustive description of the lived experiences that is as unambiguous, concise, and truthful as possible; and conducting final validation of the description from the participants' perspectives [19, 20].

To ensure the rigor and trustworthiness of this study, Lincoln and Guba's criteria, including credibility, dependability, confirmability, and transferability, were applied [21]. To enhance credibility, interview transcripts were returned to participants to confirm the accuracy of codes and interpretations. Member checking did not result in any modifications. For dependability, an external auditor familiar with qualitative research methodology but not a member of the research team reviewed the study, and consensus on the findings was achieved. For confirmability, all activities were documented, and a report of the research process was prepared. For transferability, the findings were shared with two patients outside the study who had similar characteristics to the participants, and the data were confirmed by them as well.

Results

The mean age of the women was 41.75 ± 9.52 years. Among participants, 41.7% were married, 38.5% had an education below a high school diploma, 30.8% had undergone surgery combined with chemotherapy, 30.8% had completed 12 months since treatment initiation, and 38.5% were employed (Table 2).

Table 2
Demographic characteristics of the participants

Code of participants	Age (years)	Marital Status	Education	Medical Treatment	Duration of Cancer (Month)	Employment Status
1	28	Married	Illiterate	Surg+Chemo+Radio*	6	Housewife
2	45	Single	Under Diploma	Chemo+Radio	7	self-employed
3	36	Single	Post Diploma	Surg+Chemo	8	self-employed
4	47	Married	Under Diploma	Radio+Surg	12	Housewife
5	49	Widow	Master	Radio+Surg	8	Housewife
6	46	Married	Under Diploma	Radio+Surg	12	Housewife
7	51	Single	Bachelor	Surg+Chemo	12	Employee
8	33	Widow	Under Diploma	Chemo+Radio	8	self-employed
9	30	Married	Under Diploma	Surg+Chemo+Radio	12	Employee
10	38	Single	Bachelor	Chemo+Radio	6	Employee
11	41	Married	Post Diploma	Surg+Chemo	9	Employee
12	42	Divorce	Master	Surg+Chemo	7	Employee

*Surgery, Chemotherapy, Radiotherapy

The interview findings identified the challenges and strategies of women with breast cancer in fulfilling multiple roles in their daily lives. Accordingly, the results indicate that these women become entangled in the web of multiple role performance, as they struggle on one hand to perform roles under the shadow of physical suffering, while on the other hand, cognitive burden hinders their daily role performance. Additionally, patients expend physical and mental energy on their treatment while also having other concerns as individuals in society, which can lead to energy depletion. Furthermore, since treatment and its side effects disrupt individuals' normal life routines, these patients experience time overlap between the patient role and their other daily life roles. They also experience forced elimination of certain roles (such as parenting) and postponement of roles in areas including work, housekeeping, and marital relationships. The results are presented in Table 3.

Table 3
Challenges Faced by Women with Breast Cancer in Managing Multiple Roles

Main Theme	Category	Subcategory	Codes
Caught in the web of multiple roles	Functional limitation	limited by physical functioning	Struggling to fulfill responsibilities under the shadow of constant physical pain—nausea while cooking, unable to do the laundry, unable to lift the child, unable to clean the house, difficulty in the marital relationship due to persistent pain, inability to use both hands for computer work, feeling sleepy throughout the day because of poor sleep at night, and unable to drive—whether to go to work, take the child to school, or take the family out.
		Cognitive burden clashing with role expectations,	Misunderstandings at work, becoming inattentive to a spouse’s daily conversations, forgetting where household items are kept, lacking focus during everyday conversations, struggling with the drive to work, sending out packages incorrectly, and lacking concentration due to sleep disturbances
	Role interference	Competing demands on both physical and mental energy	Mental preoccupation with illness while trying to fulfill other roles, putting on a calm exterior in front of family despite inner pain and suffering, diminished energy for playing with children, feeling obligated to accompany aging parents to medical appointments despite personal exhaustion, and being mentally consumed by others' problems while already burdened by one's own
		Inevitable temporal overlap of roles	Treatment sessions conflicting with working hours, treatment sessions overlapping with the time to pick up children from school or daycare, cooking time interfering with rest time, important family gatherings clashing with fixed treatment schedules, and treatment appointments coinciding with the mother’s angiogram appointments
	Disruption in fulfilling daily roles	Forced withdrawal from certain responsibilities	Inability to visit parents or close relatives, non-attendance at parent-teacher meetings, absence from weddings or funerals, not visiting sick relatives or friends, resigning from a supervisory position, requesting leave from work, entrusting children to the mother for care, no longer taking children to the park, and stepping back from household chores
		Struggling with delays in fulfilling roles	Putting off physical intimacy with a spouse, arriving late to work in the mornings, preparing dinner or lunch late due to drowsiness, and sending out postal packages later than intended

The findings from interviews with women with breast cancer clearly demonstrate that the simultaneous performance of multiple roles in daily life leads to functional collapse within the domain of the interplay between two erosive forces: *physical suffering* and *cognitive burden*. In fact, the overlap of these two categories of limitations places women in a position where performing maternal, spousal, and employment role simultaneously is no longer a routine duty but rather an exhausting experience of compounded disability and continuous struggle against the deterioration of physical and mental functions.

Participant 1

"I can't sleep at night, and during the day I'm always sleepy. I can't do my own work, nor the housework, nor go anywhere."

Participant 2

"My hand is really swollen and painful; I can't lift anything with it. I can't even drive to work or take my family anywhere."

Role interference, with two subcategories of *competition for physical and mental energy* and *unavoidable temporal overlap*, demonstrates that while patients are simultaneously engaged in their patient role, they are expected to cover other roles according to their previous routine. However, the current situation has led other roles to act as competitors for their energy and time. Mental preoccupation with illness while performing other roles, thinking about others' problems, maintaining a calm appearance at family gatherings to conceal pain and low energy, playing with children, and taking parents to medical appointments despite fatigue all indicate competition among multiple roles for the patients' limited energy resources. On the other hand, the overlap of treatment sessions with working hours, childcare, attending to parents' medical needs, participating in family ceremonies, and the interference of household chores with rest time due to treatment-related fatigue and sleep problems all reflect the unavoidable temporal overlap in fulfilling multiple roles.

Participant 9

"I used to play with my child at home and keep them entertained. Now I can't. When I come back from the hospital, I really don't have any energy. The child doesn't understand; they want me to play with them like before, but I truly don't have the energy."

Participant 7

"My mother had an angiography appointment in the morning. We had scheduled it for her, and I also had to go for radiotherapy. I couldn't go with my mother. In the afternoon, I just stopped by her place briefly, came home, and slept until evening. At night, I only paid a short visit."

Forced role elimination and **postponement of role performance** indicate that these patients experience disruption in fulfilling multiple roles—from being forced to withdraw from family and social gatherings to postponing spousal and work-related duties.

Participant 5

"A relative had passed away, and I should have gone. Another relative had a wedding, and my sister had a baby. Everyone expects you to be there. I didn't go to any of them because I had just had surgery and really couldn't manage it."

Participant 4

"Before, I used to have intimate relations with my husband every one or two days. But now, every time we want to, I postpone it because either I'm sleepy or I'm in pain."

Participant 8

"I work in online sales. I have to send packages on time. Sometimes I can't—either I don't have the energy or I have to go for treatment. I send them late, and that makes the customer upset with me."

Women with breast cancer attempt to overcome the challenges of simultaneously fulfilling daily roles by aligning themselves with their roles through various methods to maintain their presence in the family and community. This is achieved through *managing individual resources* and *striving to alleviate the burden of role pressure (*Table 4).

Table 4
Strategies of Women with Breast Cancer in Managing Multiple Roles

Main Theme	Category	Subcategory	Codes
Aligning with multiple roles	Managing personal resources	Facilitating role performance by overcoming physical limitations	Using a shopping cart for errands, attending physiotherapy sessions, using a washing machine and robotic vacuum for household chores, sitting on a stool while cooking, performing computer tasks with one hand, using typing software, taking sleep aids and sedatives at night to stay alert during the day, evening walks to improve sleep, holding a child while seated instead of lifting them, using pain relief before intimacy with a spouse, adopting suitable positions to avoid chest pressure during intimacy, wearing a mask while cooking, turning on the exhaust hood while cooking, using in-home service resources for tasks, and using ride-hailing services for commuting to work or taking children to school
		Cognitive management strategies	Using a calendar, writing down daily tasks, delegating cognitively demanding tasks to others, discussing mental difficulties with a spouse, and requesting a transfer to a department with less face-to-face interaction with clients
	Strategies to alleviate the burden of role strain	Conserving energy	Allocating primary energy to essential roles, taking multiple short rests throughout the day instead of resting only at night, avoiding high-energy social gatherings, accepting lower standards in role performance instead of striving for perfection, delegating certain aspects of roles to others, eliminating unnecessary routine tasks, requesting a transfer to administrative units with lower energy demands, taking work leave, breaking tasks into smaller steps, and using the technique of letting go
		Optimizing time use	Prioritizing tasks, closing the physical shop and launching an online store, delegating certain tasks to others, coordinating with family to schedule park outings, distributing roles across different days, using phone calls to check in with loved ones, online shopping, allocating high-energy time slots for demanding tasks, and renting accommodation near the treatment center to save commute time

Using assistive devices for shopping, cleaning, and cooking at home and at work; delegating driving to others; and attempting to alleviate physical problems to maintain relationships with spouses all indicate that overcoming physical limitations can facilitate role performance. Additionally, patients utilize cognitive substitution strategies such as requesting transfers to work positions requiring less mental engagement with clients, explaining their situation to others, and using reminders in an effort to reduce the interference of cognitive burden with daily roles. All of these demonstrate the management of individual resources to fulfill multiple roles.

Participant 11

"We called a home service center, and they introduced someone. After we were sure about them, they come two or three times a week to do the housework and cook, putting meals in the freezer for other days. Now I can easily go for chemotherapy and rest."

Participant 12

"I was the office secretary; the work was mentally demanding—scheduling appointments, follow-ups, and I had many clients. My concentration had really decreased. A client would come for their work today, and when they returned the next day, I had forgotten. So, I requested a transfer, and now I work in the archives."

Patients employ strategies including *breaking tasks into smaller parts*, *delegating roles to others*, *requesting transfers to less demanding work positions*, *accepting lower standards for role performance*, *taking rest breaks*, *using relaxation techniques*, and *letting go of less important roles while allocating energy to more essential roles*—all in an effort to conserve energy for fulfilling multiple roles. Furthermore, starting an online business, online shopping, prioritizing tasks, planning recreational activities with family, using communication tools such as phone calls to connect with others, and renting a residence near the treatment center to save commuting time and have more time for other roles all indicate that *time optimization* is another approach adopted by these patients. Collectively, these strategies contribute to efforts to alleviate the burden of role pressure.

Participant 10

"Being an 'ideal daughter' was before all this; the situation has changed. I had to take better care of myself and not waste my energy unnecessarily. For example, I didn't really need to go to my sister's house every day just because her child was sick. I would stay home for a few days, rest, recharge, and then go visit her one day."

Participant 6

"We rented a place near the hospital so that we could come and go easily. My husband's work is elsewhere, so he commutes. We moved here because of me. This way, my time isn't wasted, and at least I can manage the housework and my child's homework."

Participant 3

"I couldn't go to the shop; there was no time, and I didn't have the energy. Most days the shop was closed, or my father would go, but he didn't know the prices. So my father signed me up on 'Torob' [an online price comparison platform]. I set up my own website, started selling online, and my father sends the packages for me."

Discussion

Physical and cognitive health are essential components of the infrastructure related to the ability to perform daily roles, as interview findings indicate that functional limitations in physical and cognitive domains can negatively impact the daily lives of these women and, ultimately, their ability to fulfill multiple roles. Results from a previous study indicate that long-term treatment effects, including physical and cognitive limitations, may affect cancer survivors' ability to fulfill their roles as mothers, spouses, and caregivers [22]. The primary reason for this situation can be attributed to cancer treatment-related side effects. Upper extremity disabilities are among the most common and impactful consequences of breast cancer treatment. Lymphedema and axillary web syndrome can cause significant pain, shoulder mobility restriction, and functional discomfort [23]. At 6- and 12-months post-surgery, scar tissue tightness, axillary edema, neck and arm pain, and difficulty with lifting, carrying, and reaching activities are common among breast cancer patients. Furthermore, it has been found that frequent and persistent activity limitations and restricted participation in work, home, and leisure activities continue even 12 months after surgery [24]. Low handgrip strength is associated with chemotherapy toxicity and musculoskeletal side effects from medications used during hormone therapy, which likely disrupt muscle protein synthesis. Additionally, individuals with breast cancer exhibit higher fatigue levels and lower handgrip strength compared to those without breast cancer [25]. Among breast cancer patients receiving chemotherapy, 44.9% and 12.8% experience nausea and vomiting within 24 hours after administration, while 59.4% and 44.6% experience these symptoms beyond 24 hours [26]. Prolonged nausea and vomiting (3 days or more) are associated with more than a threefold increase in the risk of work absenteeism and greater disruption of daily activities compared to short-term nausea and vomiting [27]. Insomnia and poor sleep quality are other common problems among these women [28]. Furthermore, cancer-related cognitive impairment leads to deficits in memory, processing speed, attention, and executive functions, which profoundly affect occupational performance, activities of daily living, and overall quality of life [29]. Breast cancer survivors face significant workplace challenges due to cognitive impairments such as memory decline, concentration difficulties, and executive function deficits, which can lead to job loss [30].

Findings from the present study indicate that women with breast cancer experience a phenomenon termed "competition for physical and mental energy," meaning that their limited cognitive and physical resources are consumed by coping with the disease and its side effects rather than fulfilling daily roles. Energy is defined as the potential capacity to perform mental and physical activities. It is recognized in the mental domain (affecting psychological and emotional well-being) and the physical domain (affecting activities of daily living). Factors that deplete energy in cancer patients include individual factors (physical inactivity, younger age, etc.), clinical factors (multimorbidity, use of sleeping medications, etc.), recent cancer diagnosis, biological factors (inflammation, circadian rhythm disruption, etc.), energy balance-related factors (nutritional side effects of cancer and medications, micronutrient deficiencies, etc.), and concurrent symptoms (fatigue, sleep disturbance, etc.) [31]. Therefore, energy can be reduced by multiple factors in these patients. When women with breast cancer attempt to fulfill their multiple daily roles, competition for this limited energy increases, which can further deplete their energy. In a study evaluating women before breast cancer surgery and up to 6 months post-

surgery, 67.8% of patients reported a persistent reduction in average energy levels [32]. Findings from one study indicate that mothers' mental energy is consumed by the illness, leading to a loss of emotional presence with their children [33]. In the domain of family and social relationships, women attempt to maintain a calm and normal appearance in family gatherings despite internal pain and suffering. They hide their difficulties and "maintain a facade of normalcy to protect their families" [34]. This emotional labor (maintaining a calm appearance) is itself an energy-consuming activity that strains the patient's limited emotional resources and impairs effective performance of other roles. It has also been shown that the disease significantly reduces the energy of female breast cancer patients, seriously affecting their caregiving ability and making it difficult to fulfill responsibilities and commitments to support their parents [10].

The temporal overlap of roles clearly demonstrates how demanding and time-consuming treatment schedules interfere with women's other responsibilities, becoming a serious barrier to effective daily role performance. Previous studies have shown that for patients with chronic diseases, confronting the conflicting expectations of the ongoing sick role and their normal roles (such as employment, parenting, intimate relationships, leisure, and community participation) is challenging [35]. It has been documented that attending medical centers can interfere with the ability to care for dependents, perform household chores, and engage in leisure activities [36]. This may be attributed to the time constraints imposed on these women. Parsons et al. defined time burden as the burden that patients and caregivers experience due to the time required to complete treatment and cancer-related tasks, which detracts from other life responsibilities. This study emphasizes that time, administrative, and financial burdens do not exist in isolation but intersect and exacerbate one another [37]. This situation can lead to role strain, which indicates that increasing the number of roles results in overload and strain; simultaneously maintaining multiple roles can create stressful inter-role conflict, leading to dissatisfaction with one's ability to fulfill these roles and, consequently, adverse psychological and physiological outcomes [38].

Role elimination or postponement of multiple roles is another challenge these patients grapple with. This problem is particularly evident in the employment domain. Cancer survivors as a broad group may be at higher risk of leaving work, and breast cancer survivors are at particularly elevated risk. Indeed, 27.3% of individuals either stopped working altogether or reduced their working hours due to cancer [39]. Furthermore, infrequent and delayed physical intimacy is another challenge for these women. It is estimated that 17.5% to 86% of breast cancer survivors experience symptoms of sexual dysfunction, including reduced arousal, decreased sexual desire, vaginal dryness, and dyspareunia [40]. Results of a systematic review identified six main domains of sexual dysfunction: decreased libido, arousal disorder, reduced lubrication, orgasmic disorder, decreased sexual satisfaction, and dyspareunia, with multiple risk factors associated with different dimensions of dysfunction [41]. This may explain the delay or avoidance of sexual relations among these women. It has been shown that on average, five years after initial surgery, breast cancer patients exhibit lower levels of social participation in the external environment. Although social participation status improves six months after surgery, significant limitations—particularly in social dimensions such as social withdrawal and collective activities—persist [42].

Women with breast cancer employ multiple strategies to overcome the challenges of fulfilling multiple roles. These strategies can be categorized into four main domains: efforts to overcome physical challenges in role performance, cognitive management strategies, energy conservation, and time optimization. Participants utilize various strategies to cope with breast cancer, including: confrontative versus avoidant coping and emotion-focused versus problem-focused coping. It appears that patients in this study employed problem-focused approaches and confrontative coping in dealing with the challenges of living with breast cancer to manage their multiple roles in daily life [43].

Managing physical and cognitive problems is one of the problem-focused strategies used by these patients. Given the upper extremity issues resulting from breast cancer treatment, patients attempt to overcome these barriers by using assistive devices such as shopping carts. Performing rehabilitation and physiotherapy exercises and managing pain are also part of these patients' actions. Evidence indicates that physiotherapy interventions can effectively reduce pain, improve shoulder range of motion, restore functional capacity, and increase muscle strength [23]. Patients also use pharmacological and non-pharmacological methods to manage sleep. Some patients chose evening walks to improve sleep. One reason for this may be the warm climate of Dezful. Although regular exercise is effective in regulating the sleep-wake cycle and reducing fatigue, it is recommended to avoid vigorous activity immediately before bedtime. However, evidence suggests that moderate-intensity aerobic exercise, particularly in the late afternoon, can improve sleep quality and patterns [44]. Daytime napping is another strategy used by women to overcome fatigue and maintain functional capacity. Sleep hygiene recommendations in the general population often emphasize avoiding naps longer than 30 minutes, as they may interfere with the body's natural sleep rhythm. Additionally, napping after 3 PM can significantly disrupt falling asleep at night and reduce overall sleep quality; naps shorter than 30 minutes have the greatest beneficial effect on cognitive function, alertness, and mood [44].

Patients in this study used reminders, mental relaxation exercises, eliminating distractions, and maintaining quiet environments to enhance their cognitive status and perform daily roles. Results from one study showed that cancer patients (including breast cancer patients) experienced positive effects on cognitive impairments through digital applications, note-taking, and addressing other symptoms such as fatigue through rest and relaxation techniques. Accepting one's own cognitive limitations also helped participants reduce negative thought patterns. Findings suggest that each patient employs specific techniques to overcome cognitive impairment and maintain the ability to fulfill multiple roles [45]. Another study demonstrated that mobile applications providing guidance and consultation on adaptations could be a useful solution, as the diary feature of the application could be used for setting appointment reminders, medication management, and monitoring disease progression [46]. The cumulative effect of patients' efforts can facilitate their return to daily life and performance of multiple roles.

Findings from the present study demonstrate that women with breast cancer employ two key categories of strategies to maintain their core life roles (motherhood, spousal role, and employment): energy conservation and time optimization.

The concept of energy conservation emphasizes that patients must align their energy expenditure with available energy levels to prevent excessive fatigue and worsening symptoms [47]. Individuals adjust their daily activities to avoid excessive fatigue and symptom exacerbation. This strategy helps patients achieve better performance in daily activities through breaking activities into smaller parts, balancing activity with rest, and stopping activities before feeling completely fatigued, thereby preventing the destructive cycle of intense activity followed by energy collapse [48]. In this regard, findings from one study indicated that mothers, through task organization, simplification, and balancing rest with activity, attempted to perform maternal duties according to their physical capacity, conserving energy for coping with barriers to fulfilling the maternal role by eliminating unnecessary tasks and modifying task performance methods [49]. Suppressing competing activities is another strategy used by these women. Suppression of competing activities is defined as setting aside activities that compete with self-care to focus on rehabilitation and recovery. During medical rehabilitation, this strategy is particularly manifested as setting aside family duties and was reported by interviewees with children at home and family responsibilities. Suppression of competing activities also occurs in the context of occupational rehabilitation, where job tasks are adjusted according to impaired ability and health status following treatment [22]. Results of one study identified cancer-job adaptation strategies within the first three months after diagnosis, including workplace flexibility (flexible work hours, remote work to manage side effects), leave from work (short-term or long-term leave), and workplace modifications (reduced responsibilities, routine breaks, work pace adjustment). Additionally, time management enables patients to perform job tasks without needing overtime work [50]. Coordinating support systems to perform certain roles and delegating tasks are other energy conservation strategies. Patients, by creating a support system consisting of family members, friends, and colleagues, can delegate some daily responsibilities to others and conserve time and energy for more essential activities. Patients in this study appear to use instrumental support to manage multiple roles. Seeking instrumental support is defined as requesting help from family and friends who care for patients' households or children to facilitate active rehabilitation [22]. This strategy, associated with concepts such as shifting caregiving roles and task division, enables patients to focus on more essential roles despite treatment-related energy limitations and prevents being overwhelmed by the multitude of daily tasks. Patients use deliberate and planned management of personal energy resources as a way to prevent their depletion. This includes delegating tasks, prioritizing, pacing, and planning activities during peak energy times [51]. Social support can play a determining role in facilitating the process of returning to roles, relationships, and social participation after treatment [52].

The study findings indicate that time constraints cause patients to face various challenges in fulfilling multiple roles. Therefore, patients attempt to address these challenges through various methods of optimizing available time. In response to time limitations, patients employ behavioral optimization strategies that can be termed time economy, such as focusing on core activities and eliminating peripheral roles, planning with family to schedule park outings, performing roles on different days, using phone calls for greetings, maintaining collective relationships at home, allocating high-energy periods for tasks, renting housing near the treatment center to save commuting time, coordinating support systems

(family members or friends) to substitute in certain roles (such as household chores or childcare), establishing online businesses, and using online shopping—all indicating efforts to save time. A study by the American Cancer Society on breast cancer patients demonstrated that providing essential non-medical services, including grocery gift cards and prepared/delivered meals on a monthly basis, significantly reduced stress and improved patients' quality of life. This study found that feelings of "very much" disruption to daily life decreased by 7.6%, and feelings of being "very much" able to focus on family increased by 13.7%. The study confirmed that providing essential non-medical services can effectively reduce stress, improve quality of life, and allow patients to focus their energy and time on recovery and family [53]. Maintaining social relationships at home is another strategy for optimal time use. Results from one study showed that despite limitations in social participation in the external environment, patients engage in social participation within the private domain—activities such as mutual visits with neighbors, friends, or family members. Social activities via computer and mobile phone are also feasible [42]. By maintaining relationships at home and using phone communications, patients can simultaneously allocate more time to rest and household tasks while preserving their social relationships to maintain social support.

To the best of the researcher's knowledge, this is the first study to identify the challenges and strategies for performing multiple roles in women with breast cancer in Iran. However, since patients were recruited from only one city and a single treatment center, and given the qualitative nature of the study, the findings are not generalizable. Additionally, because patients preferred to be interviewed at the treatment center due to their circumstances, the physical and psychological condition of patients may have influenced the interview results.

Conclusion

Women with breast cancer face challenges in continuing their pre-diagnosis daily roles. These challenges span physical, cognitive, and energy dimensions, as well as the simultaneity of treatment sessions with other daily life roles. These challenges lead to limitations in performing household chores, maintaining marital relationships, caring for children and parents, and participating in family gatherings. In other words, these factors cause women to become entangled in the web of multiple role performance. Nevertheless, these women strive to escape this web and align with their multiple roles by attempting to overcome physical limitations, manage cognitive problems, utilize various approaches for energy conservation, and optimize their time through task scheduling. It is recommended that future studies adopt a mixed-methods (quantitative-qualitative) approach to further clarify the status of multiple role performance in women with breast cancer.

Declarations

Funding

Dezful University of Medical Sciences.

Data availability

The datasets generated and/or analyzed during the current study are not publicly available due to the sensitive nature of the qualitative interview data and the need to protect participant confidentiality, but are available from the corresponding author on reasonable request.

Ethical Consideration

This study was approved by the Ethics Committee of Dezful University of Medical Sciences

(IR.DUMS.REC.1404.090). Written informed consent was obtained from all participants before enrollment. All participants were fully informed about the study objectives and how their data would be processed and used. All ethical considerations in human research, such as informed consent, recording permission, data confidentiality, and withdrawal rights, were observed based on the Helsinki Declaration.

Consent for publication

Not applicable.

Competing interests

The author declares no competing interests.

Author details

Assistant Professor of Nursing, School of Nursing and Midwifery, Dezful University of Medical Sciences, Dezful, Iran

Author Contribution

NS wrote the main manuscript text, reviewing and editing the manuscript.

Acknowledgement

The author would like to thank the Dezful University of Medical Sciences for its cooperation for the study (IR.DUMS.REC.1404.090). I would like to thank DeepSeek AI for its assistance in editing this article and all participants.

Data Availability

The datasets generated and/or analyzed during the current study are not publicly available due to the sensitive nature of the qualitative interview data and the need to protect participant confidentiality, but

are available from the corresponding author on reasonable request.

References

1. Mehejabin F, Rahman MS. Knowledge and perception of breast cancer among women of reproductive age in Chattogram, Bangladesh: A cross-sectional survey. Health Sci Rep. 2022; 5 (5): e840: 1–11. https://doi.org/doi: 10.1002/hsr2.840
2. Haghbeen M, Mosalanezhad L, Hatami F, Kalani N. A review of patients' experiences after breast cancer: A phenomenological study. Med J Mashhad Univ Med Sci. 2023;66(3):452–63.
3. Ziamajidi N, Moini N, Danesh H, Abbasalipourkabir R, Radnia N, Barartabar Z. Epidemiological and Pathological Factors in Breast Cancer Patients in Tehran-Iran: A Single-Centered, Retrospective Study. JOGCR. 2024;9(6):634–41. https://doi.org/10.30699/jogcr.9.6.634.
4. Casanovas-Alvarez A, Sebio-Garcia R, Masia J, Mateo-Aguilar E. Experiences of Patients with Breast Cancer Participating in a Prehabilitation Program: A Qualitative Study. J Clin Med. 2024;13(373):1–19. https://doi.org/10.3390/jcm13133732.
5. Saidi N, Shahesmaeili A, Mangolian Shahrababaki P, Zakeri MA, Kalantarian Khandani B, Haghdoost A. Concerns of Women with Breast Cancer During Their Therapy in Iran: A Qualitative Investigation. Eur Jo Cancer Care. 2025;1–10. https://doi.org/10.1155/ecc/3157813.
6. Ojima Adejoh S, Esan DT, Adejayan A. Social role performance and self-identity among breast cancer patients in Lagos, Nigeria. J Health Soc Sci. 2018;3(2):171–84. https://doi.org/10.19204/2018/scrl7.
7. Gao W, Zhang Q, Wang D, Li X, Zhang L, Xu M, Han J. The role expectations of young women as wives after breast cancer treatment: A qualitative study. Int J Nurs Sci. 2024;11(3):366–73. https://doi.org/10.1016/j.ijnss.2024.05.001.
8. Reza Qoulifam A, Rasulian E, Hassankhani H, Rahmani A, Biabani F, Valizade A. Experiences of Breast Cancer Women About Partner's Unsupportive Behaviors: A Phenomenological Study. EBCJ. 2024;14(1):60–9. https://doi.org/10.22038/ebcj.2024.75633.2925.
9. Mazaheri E, Valizadeh L, Zamanzadeh V, Ghahramanian A, Onyeka TC. Being with and for mother: from perceived difficulties to rebalancing the mothering role in women with breast cancer. Nur Midwifery Stud. 2021;10(3):203–11. https://doi.org/10.4103/nms.nms_31_20.
10. Xu M, Zhang L, Zhao M, Zhang S, Luo T, Zhu Y, Han J. Role experiences of women with breast cancer as daughters: A qualitative meta-synthesis. Asia Pac J Oncol Nurs. 2024;11(11):1–12. https://doi.org/10.1016/j.apjon.2024.100599.
11. Fiabane E, Dordoni P, Perrone C, Bernardo A, Corsi F, Gabanelli P. What really matters for returning to work after breast cancer? A 6-month exploratory study. Women Health. 2024;64(4):298–307. https://doi.org/10.1080/03630242.2024.2324312.
12. Sarang B, Bhandarkar P, Parsekar SHS, Patil P, Balan Venghateri J, Ghoshal R, Kizhakke Veetil D, Shah P, Gadgil A, Roy N. Concerns and coping mechanisms of breast cancer survivor women from

Asia: a scoping review. Supportive Care Cancer. 2023;31(9):5281–13. https://doi.org/10.1007/s00520-023-07996-w.

13. Zhou K, Ning F, Wang X, Wang w. Han d, Li x. Perceived social support and coping style as mediators between resilience and health-related quality of life in women newly diagnosed with breast cancer a cross-sectional study. BMC Women's Health. 2022;22(1):198. https://doi.org/10.1186/s12905-022-01783-1.
14. Gershfeld-Litvin A, Vishnia O, Habalis-Miller T. Recovering or working: women's experiences of working while coping with cancer: a qualitative study. Support Care Cancer. 2025;33(4):1–9. https://doi.org/10.1007/s00520-025-09349-1.
15. Aspers P, Corte U. What is qualitative in qualitative reseach. Qual Sociol. 2019;42:139–60. https://doi.org/10.1007/s11133-019-9413-7.
16. Cypress B. Qualitative research methods: a phenomenological focus. Dimen crit care Nurs. 2018;37(6):302–9. https://doi.org/10.1097/DCC.0000000000000322.
17. Hennink M, Kaiser BN. Sample size for saturation in qualitative research: a systematic review of empirical tests. Soc Sci Med. 2022;292:114523. https://doi.org/10.1016/j.socscimed.2021.114523.
18. Khalid Ahmed S. Sample size for saturation in qualitative research: Debates, definitions and strategies. J Med Surg Public Health. 2025;5:1–6. https://doi.org/10.1016/j.glmedi.2024.100171.
19. Praveena K, Sasikumar S. Application of Colaizzi's method of data analysis in phenomenological research. Med Leg Updat. 2021;21(2):914–8. https://doi.org/10.37506/mlu.v21i2.2800.
20. Vignato J, Inman M, Patsais M, Conley. Computer-assisted qualitative data analysis software, phenomenology, and colaizzi's method. West J Nurs Res. 2022;44(12):1117–23. https://doi.org/10.1177/01939459211030335.
21. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today. 2004;24(2):105–12. https://doi.org/10.1016/j.nedt.2003.10.001.
22. Kang D, Park J, Kim H, Lee JE, Nam SJ, Kim SW, Yu J, Chae BJ, Ryu JM. Breast Cancer Information Grand Round for Survivorship (BIG-S) prospective cohort. Eur J Epidemiol. 2025;40(8):959–68. https://doi.org/10.1007/s10654-025-01262-5.
23. Klein I, Shahar DR, Friger M, Rosenberg I, Barsuk D, Ben David MA, Susmalian S. Physical Therapy Utilization and Morbidity Outcomes After Breast Cancer Surgery: A Longitudinal Analysis of Three Combined Cohorts. Cancers (Basel). 2025;17(20):3296. https://doi.org/10.3390/cancers17203296.
24. Mehra S, Kumar P, Soni A. Physical Functional Impairment in Breast Cancer Patients: A Cross-Sectional Expert Survey. Cureus. 2024;16(3):e57364. https://doi.org/10.7759/cureus.57364.
25. Silva NP, Marques VA, Ferreira-Junior JB, Freitas-Junior RD, Vieira CA. Quality of life, fatigue, and muscle strength in women with breast cancer undergoing chemotherapy or hormonal therapy: a case-control study. Front Oncol. 2025;15(1553009):1–9. https://doi.org/10.3389/fonc.2025.155300.
26. Bai L, Ni l, Lu J, Zhang YY, Yin Y, Zhang W, Duan X. Relationship between nausea and vomiting and physical activity in patients with lung cancer undergoing first chemotherapy. Fron Oncol.

2024;14(1396637):1–9. https://doi.org/10.3389/fonc.2024.1396637.

27. Schwartzbeerg L, Navari RM, Ruddy KJ, LeBlanc W, Clark-Snow R, Wichham R, Kloth D, Binder G, Bailey WL, Turini M, Potluri R, Liu X, Papademetrious E, Roeland E. Work loss and activity impairment due to extended nausea and vomiting in patients with breast cancer receiving CINV prophylaxis. Supportive Care Cancer. 2023;31(12):1–7. https://doi.org/10.1007/s00520-023-08119-1.
28. Liu X, Yang M, Ma Y. Living beyond survival: Experiences of self-management among long-term breast cancer survivors – A qualitative study.Int J Nurs Stud Adv. 2025 4(10): 100462. https://doi.org/10.1016/j.ijnsa.2025.100462
29. Henneghan AM, Van Dyk KM, Haywood D, Patel M, Franco-Rocha OY, Bang S, Longley T, asker R, Kaufmann TT, Paolillo EW, Moore RC, Hart NH. (2024). Characterizing cancer-related cognitive impairments and impact on quality of life in women with metastatic breast cancer. *Breast Cancer Res Treat*. 2025; 209(1): 125–138. https://doi.org/10.1007/s10549-024-07479-4
30. Lewis J, Mackenzie L. Cognitive changes after breast cancer: a scoping review to identify problems encountered by women when returning to work. Disabil Rehabil. 2022;44(18):5310–28. https://doi.org/10.1080/09638288.2021.1919216.
31. Ayangha Asakitogum D, Jogn Nutor J, Pozzar R, Hammer M, Alismail S, Kober KM, Miaskowski CH. Multidimensional Model of Energy in Patients with Cancer. Semin Oncol Nurs. 2024;40(151644):1–10. https://doi.org/10.1016/j.soncn.2024.151644.
32. Kober KM, Smoot B, Paul SM, Cooper BA, Levine JD, Miaskowski C. Polymorphisms in cytokine genes are associated with higher levels of fatigue and lower levels of energy in women after breast cancer surgery. J Pain Symptom Manage. 2016;52(5):695–708. https://doi.org/10.1016/j.jpainsymman.2016.04.014.
33. Mazaheri E, Ghahramanian A, Valizadeh L, Zamanzadeh V, Onyeka TC. Disrupted mothering in Iranian mothers with breast cancer: A hybrid concept analysis. BMC Women Health. 2021;21(234):1–17. https://doi.org/10.1186/s12905-021-01346-w.
34. Jung MS, Jang M. Resilience of Korean breast cancer survivors within family relationships: A qualitative study. Fam Relat. 2026;1–16. https://doi.org/doi:10.1111/fare.70236.
35. Zheng Y, Zhu L, Patrick D, Li Y, Xu F, Zhang L, Song M, Cheng X, Chn B, Chen Y, Lu X, Wang H. Work–health–personal life conflicts in naive patients with chronic hepatitis B receiving initial treatment in China: a qualitative study. BMJ Open. 2020;10(9):e035688. https://doi.org/10.1136/bmjopen-2019-035688.
36. Dona AC, Ambo A, Jewett P, Brown K, Parsons H, Gupta A, Teoh D, Blaes A, Vogel RI. Logistic and time burdens reported by gynecologic and breast cancer survivors. BMC Women Health. 2025;25(1):273. https://doi.org/10.1186/s12905-025-03826-9.
37. Parsons HM, Gupta A, Jewett P, Vogel RI. The intersecting time, administrative, and financial burdens of a cancer diagnosis. J Natl Cancer Inst. 2025;117(4):595–600. https://doi.org/doi:10.1093/jnci/djae252.

38. Sumra MK, Schillaci MA. Stress and the Multiple-Role Woman: Taking a Closer Look at the Superwoman. PLoS ONE. 2015;10(3):e0120952. https://doi.org/10.1371/journal.pone.0120952.
39. Meernik C, Sandler DP, Peipins LA, Elizabeth Hodgson ME, Blinder VS, Wheeler ST, Nichols HB. Breast Cancer–Related Employment Disruption and Financial Hardship in the Sister Study. JNCI Cancer Spectr. 2021;5(3):1–8. https://doi.org/10.1093/jncics/pkab024.
40. Rodrigues-Machado N, Bonfill-Cosp X, Quintana MJ, Santero M, Bartolo A, Olid AS. Sexual dysfunction in women with breast cancer: a systematic review. Support Care Cancer. 2025;33(4):332. https://doi.org/10.1007/s00520-025-09352-6.
41. Dai Y, Cook OY, Yeganeh L, Huang C, Ding J, Johnson CE. Patient-Reported Barriers and Facilitators to Seeking and Accessing Support in Gynecologic and Breast Cancer Survivors with Sexual Problems: A Systematic Review of Qualitative and Quantitative Studies. J Sex Med. 2020;17(7):1326–58. https://doi.org/10.1016/j.jsxm.2020.03.004.
42. Sperlich S, Noeres D, Holthausen-Markou S, Park-Simon TW, Sahiti E, Geyer S. Social participation of women with breast cancer compared to the general population 5 years after primary surgery—what role do medical data and cancer–related complaints play? Support Care Cancer. 2024;32(8):1–11. https://doi.org/10.1007/s00520-024-08695-w.
43. Heidkamp P, Hiltrop K, Breidenbach C, Kowalski C, Pfaff H, Ernstmann N. Coping with breast cancer during medical and occupational rehabilitation: a qualitative study of strategies and contextual factors. BMC Women Health. 2024;24(1):183. https://doi.org/doi:10.1186/s12905-024-03012-3.
44. Arbour C, Hjeij D, Bilodeeau K. Managing sleep disruptions during cancer: Practical tips for patient education. Can Oncol Nurs. 2024;34(4):583–6.
45. Brurok Myklebost S, Gjerad Bevan K, Aasebo Hauken M, Johanne Tveit Sekse R, Therese Schmid M, Hope Spjeld S, Fredrik Fletcher G. Nordgreen T.Self-management of cognitive impairments: A qualitative study of cancer survivors' coping strategies. Support Care Cancer. 2025;33(9):1–7. https://doi.org/10.1007/s00520-025-09831-w.
46. Romero-Ayuso D, Garcia—Lopez R, Lozano -Villena C, Martinez JR, Parga-Amado P, Garci-Ferreiro P, Galllud J, Lozano M, Trivino-Juarez JM. Usability of a mobile phone application to enhance activities of daily living in occupational therapy services for breast cancer survivors. Hong Kong J Occup Ther. 2023;36(2):128–40. https://doi.org/10.1177/15691861231206489.
47. O'Connor K, Sunnquist M, Nicholson L, Jason LA, Newton JL, Strand EB. Energy envelope maintenance among patients with myalgic encephalomyelitis and chronic fatigue syndrome: Implications of limited energy reserves. Chronic Illn. 2019;15(1):51–60. https://doi.org/10.1177/1742395317746470.
48. Casson S, Jones MD, Cassar J, Kwai N, Lioyd AR, Barry BK, Sandler CX. The effectiveness of activity pacing inteerventions for people with chronic syndrome: a systematic review and meta-analysis. Disabil Rehabil. 2023;45(23):3788–802. https://doi.org/10.1080/09638288.2022.2135776.
49. Zamanzadeh V, Ghahramanian A, Valizadeh L, Mazaheri E. Strategies Used to by Mothers with Breast Cancer to Apply the Mothering Role: A Qualitative Study. Avicenna J Nurs Midwifery Care.

2021;29(3):220–32.

50. Tracy JK, Adetunji F, Kibria GMA, Swanberg J. Cancer-work management: Hourly and salaried wage women's experiences managing the cancer-work interface following new breast cancer diagnosis. PLoS ONE. 2020;15(10):e0241795. https://doi.org/10.1371/journal.pone.0241795.
51. Shimizu Y, Tsuji K, Hanai A, Hosokawa M. Effects of activity pacing–related interventions on cancer-related fatigue and classification of behavior change techniques: A systematic review and meta-analysis. Supportive Care Cancer. 2026;34(544):1–16. https://doi.org/10.1007/s00520-026-10754-3.
52. Gu D, Gu Y, Jiang L, Zan Y, Yu M, Cao Y. Authentic experiences of social reintegration in breast cancer patients: A qualitative study. 2026. J Prev Assess Rehabilitation. https://doi.org/10.1177/10519815261456688
53. Remen D, Jurrissen C, Magnavita E, Feldgoise J, Mendelson M, Clark N, Hazra A, Comander A. (2025) 'Abstract P2-03-12: Reducing Stress and Improving Quality of Life for Adult Breast Cancer Patients via delivery of monthly non-medical essential services for up to six months during treatment. *Clin Cancer Res*. 2025; 31(12_Supplement): 03–12. https://doi.org/10.1158/1557-3265.SABCS24-P2-03-12

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- supplementary.docx