RESEARCH ARTICLE

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# Caring Through Pain: Indonesian Families' Experiences During Chemotherapy for Breast Cancer Patients

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## Abstract

**Purpose:** This study aims to explore the lived experiences of families caring for breast cancer patients undergoing chemotherapy, focusing on the multidimensional impacts and coping mechanisms in the Indonesian cultural context. **Method:** Using Van Manen's hermeneutic phenomenological approach, this qualitative study involved 20 family members of breast cancer patients undergoing chemotherapy at a government hospital in Semarang, Indonesia. Data were collected through in-depth, semi-structured interviews, supported by field notes and demographic questionnaires. Thematic analysis was conducted using NVivo software and Colaizzi's method to extract key themes and subthemes. **Results:** Four major themes emerged: (1) information on the impact of chemotherapy, which included physical, psychological, and socioeconomic changes experienced by patients and observed by families; (2) unpreparedness to face side effects, revealing families' confusion and emotional responses due to a lack of knowledge; (3) The need for adequate information and support, highlighting the demand for clear communication and psychological guidance from healthcare providers; and (4) Hope and the meaning of being a caregiver, in which families found renewed strength, spiritual growth, and purpose throughout the caregiving journey. These findings highlight the complex emotional and social dynamics that families encounter during the cancer treatment process. **Conclusions:** Chemotherapy has a profound impact not only on patients but also on their families. A lack of preparedness and insufficient support intensify emotional and practical burdens. Therefore, a culturally sensitive, family-centered nursing intervention is crucial to enhance family resilience, ensure effective caregiving, and improve overall quality of life during cancer treatment in developing countries. Such culturally sensitive, family-centered nursing support is essential to strengthen caregiver resilience, reduce burden, and improve the quality of life for both patients and families during chemotherapy.

**Keywords:** breast cancer- chemotherapy- family- multidimensional impact- oncology nursing

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## Introduction

One of the most common cancers among women globally, including in Indonesia, is breast cancer. The primary cause of cancer-related mortality among women, breast cancer accounts for around 11.7% of all cancer cases worldwide, according to GLOBOCAN statistics from 2020 [1]. Chemotherapy is one of the primary breast cancer treatment options [2, 3]. Despite its shown ability to stop the spread of cancer cells and prolong life expectancy, chemotherapy has a number of adverse effects that negatively affect patients' quality of life [4–6].

Chemotherapy side effects affect the patient's social life and emotional health in addition to their physical health [7, 8]. When considered from the standpoint of the family, who serve as the primary caregivers during therapy, these impacts become much more complicated [9]. Families frequently endure financial hardship, psychological strain, and a lack of readiness to deal with the patient's significant changes, such as hair loss, persistent fatigue, gastrointestinal symptoms, emotional instability, and reduced functional ability, which substantially disrupt daily family life [10].

The family plays a crucial part in the process of making medical decisions and providing emotional support in Asian cultures, especially in Indonesia. In the Indonesian cultural context, family involvement in healthcare decision-making is strongly influenced by collectivist values, respect for familial authority, and shared responsibility for illness management. Families often play a decisive role in selecting treatment options, including the consideration of traditional or alternative therapies. While such approaches may provide emotional reassurance, reliance on alternative treatments may delay

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the initiation of evidence-based medical care, such as chemotherapy, potentially leading to disease progression and increased caregiving burden. This cultural dynamic places families in a complex position, balancing hope for less invasive options with the urgency of timely cancer treatment [11]. Involving family members in cancer patients' treatment generates a special dynamic that necessitates a thorough comprehension of their experiences [12]. Previous research has demonstrated that the emotional stress experienced by the patient and family members might be exacerbated when the family is ill-prepared to deal with the adverse effects of therapy [13].

However, the experiences of families as key supports have not been well examined, particularly in the context of local Indonesian culture, and the majority of prior studies have concentrated more on patient perspectives. In order to create more contextualized and successful family-based interventions, it is crucial to directly comprehend the family's viewpoint on the multifaceted effects of chemotherapy. The study aims to provide the family's viewpoint on the many effects that chemotherapy has on individuals with breast cancer.

## Materials and Methods

*Study design*

The study employs a qualitative methodology and Van Manen's hermeneutic phenomenological approach. Although the overall methodological orientation of this study was hermeneutic phenomenology, a structured analytic procedure was required to systematically organize the interview data. To investigate and comprehend the profound significance of the lived experience of families caring for breast cancer patients receiving chemotherapy, this method was used. Time (temporality), place (spatiality), social ties (relationality), body (corporeality), mood or emotionality, and other basic aspects of human life known as lifeworld existentials all have an impact on lived experience, according to Van Manen. This methodology emphasizes a thoughtful comprehension of the subjective narratives of the participants, evaluating how such experiences are lived within social and cultural settings in addition to merely recounting the events that were experienced [14]. Participants were allowed to freely share their experiences via in-depth interviews using semi-structured questions. The data were analyzed using NVivo-assisted thematic analysis to identify patterns, key themes, and connections between ideas in the experiences of the participants. The study also includes a list of the Consolidated Criteria for Reporting Qualitative Research (COREQ) for reporting qualitative research [15, 16]. Data was gathered between December 2024 and February 2025. The primary researcher is a nurse educator with clinical experience in oncology nursing, particularly in supporting patients with breast cancer. This background facilitated a deeper understanding of the emotional, social, and physical challenges faced by families during chemotherapy. However, the researcher remained aware that such familiarity could potentially introduce bias. To minimize subjective interpretation, the researcher engaged in ongoing reflexivity throughout the study, maintained a reflective journal, and conducted peer debriefings with co-authors. These measures were taken to ensure the credibility, neutrality, and trustworthiness of the data collection and analysis process.

*Study sample and setting*

The government hospital in Semarang, Central Java, Indonesia, was purposefully chosen as the research site because it has a functioning family support services section and is a key referral center for breast cancer patients receiving chemotherapy. The study's goal of examining family experiences in the setting of critical care and social support-oriented services is pertinent to these circumstances. Twenty people who are family members of breast cancer patients receiving chemotherapy make up the research sample. The sample size was determined based on data saturation, defined as the point at which no new themes emerged from additional interviews (i.e., no further insights were obtained from participant responses). Saturation is considered an appropriate criterion for determining sample adequacy in qualitative research, especially in phenomenological designs where depth of understanding is emphasized over numerical representativeness [17]. With the following inclusion criteria, participants were chosen through the purposive sampling method: (1) they had to be at least eighteen years old; (2) they had to be directly involved in the patient's care as immediate family members (spouse, children, siblings, or parents); (3) they had to be able to communicate effectively; and (4) they had to be willing to participate in the study by giving written consent (informed consent). Family members with cognitive impairment, severe emotional distress, or inability to complete interviews were excluded from the study. The hospital's medical personnel helped recruit participants by recommending family members who fit the requirements. To minimize potential selection bias, hospital staff were instructed to inform all eligible family members who met the inclusion criteria, and participation was entirely voluntary without any influence on clinical care or treatment decisions. The sample size was determined based on data saturation, defined as the point at which no new themes emerged from additional interviews. To preserve the participants' privacy and comfort, interviews were done face-to-face in the counseling room or another private and quiet space within the hospital.

*Instruments*

*The demographic data questionnaire*

This study's tools include a demographic data questionnaire, which is intended to gather fundamental details about the participants' traits. The following characteristics are included in this questionnaire: age, gender, marital status, education level, relationship with breast cancer patients, and length of patient care. The participants' social and economic background was also ascertained by gathering data on their work, financial position, and sources of funding for medical treatment. This demographic information is useful for giving a general picture of participant characteristics and for analyzing the connection between demographic variables and family viewpoints of the multifaceted effects of chemotherapy on patients with breast cancer.

*Semi-structured interview guide*

The primary tool used in this study to obtain qualitative data is a semi-structured interview guide, in addition to the demographic data questionnaire. The purpose of this interview guide is to learn more about the family's experiences using faith-based treatments to boost the resiliency of patients with breast cancer during chemotherapy. Within this context, faith and beliefs were explored as part of families' broader lived experiences, including coping with chemotherapy-related challenges, preparedness for caregiving, information and support needs, and processes of meaning-making. The interview questions were developed based on a review of relevant qualitative literature on family caregiving in cancer and were refined through discussions among the research team with expertise in oncology nursing. In addition to the difficulties families have in giving assistance, the interview questions address emotional, informational, instrumental, appreciative, and spiritual help.

*Field notes*

Additionally, field notes are used in this study to record observations made during interviews, such as participants' body language, emotional expressions, and social setting. These comments contribute to a deeper knowledge of family experiences and enhance data analysis. Data triangulation was carried out by comparing interview results from many participants and validating findings with pertinent literature sources in order to improve data validity.

*Data collection*

In-depth in-person interviews with individuals who were specifically chosen based on inclusion criteria were used to collect data. To protect the participants' privacy and comfort, the interviews were held in counseling rooms or other cozy hospital spaces after written consent (informed consent) was obtained. The perspectives of relatives supporting breast cancer patients receiving chemotherapy were investigated using a semi-structured interview guide. With the participants' permission, each 30- to 60-minute interview was recorded. Interviews were audio-recorded using a digital voice recorder to ensure accuracy of data capture. To further enhance the qualitative information gathered, the researchers also took field notes on nonverbal cues, emotional reactions, and the social environment that surfaced throughout the interviews.

*Trustworthiness*

Several procedures are used in the data collection and analysis process to guarantee the caliber of the study. By comparing data from several participants and accompanying documentation, source triangulation preserves the data's validity and dependability. Experts in oncology nursing were also included in peer debriefing, which involved reviewing and commenting on the research findings. To enhance the accuracy of data interpretation, member checking was conducted by inviting participants to review summaries of their responses and to provide clarification or correction when needed. To provide openness and enable an audit trail, the whole study process was meticulously documented, including exact transcripts of the interviews. NVivo software was used for data analysis, which helps with systematic theme categorization and lessens interpretive bias. This method allows the data and study findings to be held to a scientific standard.

*Data Analysis*

The Colaizzi approach [18, 19], which is thought to be appropriate for methodically capturing the core of participants' experiences, was used to analyze the data. Although Colaizzi's steps were used to organize and structure the data, the interpretation of meanings was guided by Van Manen's hermeneutic phenomenological perspective. NVivo software was used to support data management and facilitate theme categorization and organization [20]. All recorded interviews are transcribed verbatim before participants are contacted to verify the accuracy of the information. To gain a comprehensive understanding of the lived experiences described, the researcher carefully examined the entire transcript. Important quotes were determined to be meaningful comments that were pertinent to the research phenomenon. These assertions were then given meanings, which were further categorized into themes and subthemes according to their linkages and resemblances. Although coding was conducted openly and inductively, interpretation remained grounded in phenomenological reflection. Creating a summary of the participants' experiences is the last step, and the findings are incorporated into the major themes that capture the deep significance of family experiences [21]. Verification of findings with participants and triangulation of data increases the validity of the data. Consistent with phenomenological inquiry, themes were allowed to emerge inductively from participants' lived experiences rather than being restricted to predefined conceptual categories.

*Ethics*

The Declaration of Helsinki's ethical guidelines were followed for conducting this study. The Health Research Ethics Committee of RSUD KRMT Wongsonegoro, Semarang, Indonesia, granted ethical permission (Number: 161/KEPK-RSKRM/2024). All participants were given a thorough description of the goals, methods, advantages, and dangers of the study before data collection. Written consent, also known as informed consent, was obtained willingly. Additionally, participants are allowed to leave at any moment without facing any repercussions. Anonymity and confidentiality are ensured both during and following the study.

## Results

*Characteristics of the participants*

Twenty family members of breast cancer patients receiving chemotherapy are involved in this study

(Table 1). Every participant was chosen on the basis of their active participation in the process of support, whether it was emotional, physical, or medical decision-making. The participants' ages, which vary from 36 to 62, demonstrate maturity and a feeling of duty within the family. The majority of participants are the patients' wives and children, both male and female; the other participants include their parents, siblings, and in-laws. This suggests that the patient's direct and near family members assist. The participants' varied educational backgrounds, which range from not having completed elementary school to having completed college, may have an impact on their comprehension of medical knowledge and how they manage the patient care process. Most participants have been with patients for six months to more than two years. Long-term caregiving experience offers a wide range of perspectives on the demands and difficulties that families encounter during the chemotherapy process. In keeping with the phenomenological approach employed in this study, the diversity of origins and roles becomes a significant asset in thoroughly examining the dynamics of family experiences.

The breast cancer patients cared for by participants in this study ranged in age from 36 to 60 years, with the majority between 46 and 55 years (Table 2). This age group reflects individuals in their productive to pre-elderly years, often playing key roles as mothers, spouses, or family breadwinners. As such, the impact of cancer and chemotherapy extends beyond physical symptoms to profound psychosocial consequences. Patients had undergone a varying number of chemotherapy sessions, ranging from two to more than six cycles. Most were in their second to fourth cycles, indicating differences in disease stages and treatment responses. Educational backgrounds also varied, with most patients completing secondary school (junior or senior high), while some had attained higher education or had not received formal education. These disparities likely influenced patients' understanding of medical information and their engagement in decision-making processes regarding treatment. All patients were covered by Indonesia's national health insurance program (BPJS, Badan Penyelenggara Jaminan Sosial), which provides basic healthcare coverage for the general population, suggesting that most participants came from lower- to middle-income households. While BPJS facilitated access to basic cancer care, families often bore additional out-of-pocket expenses, which became a notable source of stress. The time since diagnosis ranged from five months to over two years. This variation illustrates the different phases of psychological and physical adaptation that patients and their families experienced during the extended treatment process.

### *Main themes and sub-themes*

The data analysis yielded four themes and 3 subthemes (Table 3).

### *Information on the impact of chemotherapy*

Information about the impact of chemotherapy explains how families understand and respond to the various side effects experienced by breast cancer patients during chemotherapy. In addition to physical side effects, the consequences of chemotherapy also extend to psychological and socioeconomic aspects affecting both patients and their families. The empirical knowledge and

Table 1. Participant Characteristics (n=20)

| Participant Code | Age (years) | Gender | Relationship to Patient | Educational Background | Duration of Caregiving |
|---|---|---|---|---|---|
| P1 | 47 | Female | Daughter | Senior High School | 8 months |
| P2 | 50 | Male | Husband | University Degree | 1 year |
| P3 | 38 | Female | Daughter | Junior High School | 6 months |
| P4 | 60 | Male | Sibling | Primary School | >2 years |
| P5 | 42 | Female | Daughter | Senior High School | 9 months |
| P6 | 45 | Male | Husband | Junior High School | 1 year |
| P7 | 36 | Female | Daughter | Senior High School | 7 months |
| P8 | 55 | Male | Husband | Primary School | 1.5 years |
| P9 | 40 | Female | Daughter | University Degree | 5 months |
| P10 | 62 | Male | Parent | Primary School | >1 year |
| P11 | 43 | Female | Daughter-in-law | Senior High School | 10 months |
| P12 | 49 | Female | Daughter | Junior High School | 1 year |
| P13 | 46 | Male | Husband | Senior High School | 1 year |
| P14 | 41 | Female | Daughter | University Degree | 6 months |
| P15 | 58 | Male | Sibling | Primary School | >1 year |
| P16 | 37 | Female | Daughter | Junior High School | 8 months |
| P17 | 52 | Male | Husband | Senior High School | 1 year |
| P18 | 48 | Female | Daughter | Senior High School | 9 months |
| P19 | 44 | Male | Husband | University Degree | 7 months |
| P20 | 39 | Female | Daughter | Junior High School | 1 year |

Note: Participant codes are anonymized to maintain confidentiality.

Table 2. Characteristics of Breast Cancer Patients (n=20)

| Patient Code | Age (years) | Chemotherapy Sessions | Educational Level | Duration Since Diagnosis | Healthcare Coverage |
|---|---|---|---|---|---|
| P1 | 48 | 2 cycles | Senior High School | 1 year | BPJS |
| P2 | 54 | 3 cycles | University | 1 year | BPJS |
| P3 | 46 | 3 cycles | Junior High School | 6 months | BPJS |
| P4 | 59 | >6 cycles | Primary School | >2 years | BPJS |
| P5 | 50 | 2 cycles | Senior High School | 9 months | BPJS |
| P6 | 53 | 4 cycles | Junior High School | 1 year | BPJS |
| P7 | 38 | 2 cycles | Senior High School | 7 months | BPJS |
| P8 | 56 | >6 cycles | Primary School | 1.5 years | BPJS |
| P9 | 42 | 3 cycles | University | 5 months | BPJS |
| P10 | 60 | 4 cycles | Primary School | >1 year | BPJS |
| P11 | 47 | 2 cycles | Senior High School | 10 months | BPJS |
| P12 | 51 | 3 cycles | Junior High School | 1 year | BPJS |
| P13 | 49 | 2 cycles | Senior High School | 1 year | BPJS |
| P14 | 45 | 4 cycles | University | 6 months | BPJS |
| P15 | 57 | >6 cycles | Primary School | >1 year | BPJS |
| P16 | 40 | 3 cycles | Junior High School | 8 months | BPJS |
| P17 | 55 | 2 cycles | Senior High School | 1 year | BPJS |
| P18 | 48 | 3 cycles | Senior High School | 9 months | BPJS |
| P19 | 44 | 4 cycles | University | 7 months | BPJS |
| P20 | 39 | 2 cycles | Junior High School | 1 year | BPJS |

Note: Patient codes are anonymized. BPJS refers to the Indonesian National Health Insurance scheme.

Table 3. Description of Themes and sub-Themes

| Themes | Sub-themes |
|---|---|
| Information on the impact of chemotherapy | Physical changes<br>Psychological changes<br>Social and economic changes |
| Unpreparedness to face side effects | |
| The need for adequate information and support | |
| Hope and the meaning of being a caregiver | |

subjective judgments that influence how families deal with the disease are reflected in this information, which was directly gathered from their experiences traveling with patients while they receive treatment. In addition to enhancing the family's understanding, this information influences their attitudes, coping mechanisms, and choices about the patient's care.

*Sub-themes*

Physical changes. The most obvious effect and the primary cause of the family's emotional reaction are physical changes. Families experience a range of physical symptoms, including hair loss, digestive issues (diarrhea, vomiting, constipation, nausea), decreased appetite, sleep issues, discomfort, skin and nail changes, and physical weakness that makes it difficult for the patient to do everyday tasks. The family experiences discomfort and worry as a result of this influence, particularly when abrupt and significant changes take place. As the patients' physical condition deteriorated, several families voiced shock and fear, which confirmed their belief that chemotherapy was a great burden.

Nearly every participant reported that following many chemotherapy sessions, the patient's hair fell off. This turns into a startling visual cue for the family.

*"Her hair began falling out after several chemotherapy sessions..."* (P1)

*"When the 4th or 5th time comes, all the hair has fallen off..."* (P18)

The patient's everyday life is significantly disrupted by the symptoms of diarrhea, constipation, nausea, and vomiting.

*"Nausea is also stress, right..."* (P1)

*"After chemo... vomiting, headache..."* (P7)

A lot of patients have trouble eating, which causes them to lose a lot of weight.

*"Can't eat... his body is also starting to become less fit..." (P4)*

*"Used to be chubby, now skinny to the bone..."* (P9)

The patient's ongoing pain is making it difficult for them to fall asleep.

*"I can't sleep; it feels so restless at night..."* (P19)

*There have also been reports of darkened fingers, burnt skin, discolored nails, and bruised hands.*

*"His hands had burnt blood vessels... his body was bruised and burnt..."* (P10)

*"Nails turn black..."* (P14)

Common symptoms include swollen legs, unsteady gait, and generalized weakness.

*"His leg too, he walks with a limp..."* (P9)

*"Already weak, its strength has diminished..."* (P18)

*Sub-themes*

Psychological changes. Psychological effects emerged as more subtle yet significant factors. Sharp emotional changes, such as becoming quickly agitated, overly depressed, or sensitive to small things, are observed by the patient's relatives. An identity crisis and a decrease in self-esteem are also brought on by changes in body shape, hair loss, and breast loss. Due to a dearth of knowledge about the psychological effects of chemotherapy, families struggle to react to these emotional changes. With the help of family and social support, some patients who initially exhibited significant levels of anxiety or denial about the treatment gradually shifted from fear or denial toward acceptance of chemotherapy.

The patient is now more sensitive, irritable, and sometimes too sentimental.

*"Since the chemo, he has been more emotional..." (P10)*

*"The emotions are heightened, so they become very sensitive..."* (P14)

An identity dilemma results from losing a breast.

*"If they no longer have that, their self-confidence decreases..."* (P13)

Some patients changed their opinions after receiving social support after originally refusing treatment out of dread of the institution.

*"Even though he used to be afraid of hospitals... now he's brave."* (P20)

*Sub-themes*

Social and economic changes. Chemotherapy also affected the social and economic aspects of family life. A substantial financial burden is brought on by the frequency of hospital visits, the need for new drugs, and the expense of treatment that is not entirely covered by the Social Security Administration (SSA). Many families must change their work schedules or give up their employment in order to be with the patients. The patient's social duties are also impacted by their reliance on family members. Families are under more social and financial strain since they have to make sure the patient's requirements are satisfied.

Children must pay for all of their medical care.

*"The financial impact is all borne by the children."* (P5)

In order to be with the sick, family members had to quit their careers.

*"The son... has to resign to take care of his parents."* (P7)

Frequently, extra equipment or medications must be bought separately.

*"I bought the medicine from the pharmacy myself..."* (P10)

*"Family members were instructed to purchase additional medications online.."* (P20)

These social and economic changes were reported by most participants regardless of caregiver age or gender. However, the intensity of the burden varied depending on employment status, financial responsibility, and the caregiving role within the family.

*Unpreparedness to face side effects*

One of the biggest problems in caring for people with breast cancer receiving chemotherapy is the family's lack of preparation. Family members get confused and anxious as a result of the complicated and sometimes unforeseen side effects, which include nausea, vomiting, hair loss, emotional and behavioral changes, and other physical problems.

*"Then the family at home might get a bit dizzy too... so it's not surprising if the child vomits, that's why."* (P7)

*"Mom was shocked that her hair fell out completely... just a little bit left, sulking."* (P10)

The patient's health changes suddenly, and the family feels unprepared to deal with it. They react to the circumstances they encounter impulsively and frequently emotionally since there are no clear rules in place.

*"The side effects, ma'am, I still don't understand... because the creatinine level in the kidneys also increased to 2."* (P13)

*"I don't know; I was just given pain relievers... but it's continuous, you know, Ma'am."* (P15)

*The need for adequate information and support*

The family has a great need for accurate, useful, and simple-to-understand information on the patient's health, the side effects of chemotherapy, and the proper handling procedures as a result of this lack of preparation.

*"Mental first, of course... if the mental state is good, the severity of the disease can be lighter."* (P2)

*"I asked the nurse; I requested the notes... if it's more expensive, tell the kids to buy it online."* (P20)

The family also mentioned that they needed psychological help from medical staff in order to be more mentally prepared to be with the patient. This support included sympathetic communication techniques that did not put the patient under further psychological strain.

*"If possible, convey it in a good way so it doesn't damage their psyche or mental state."* (P4)

*Hope and the Meaning of Being a Caregiver*

Beyond the emotional and physical burden of caregiving, families also reported discovering renewed hope and meaning throughout their journey of supporting a loved one with breast cancer. This caregiving experience led many to reflect on life, strengthen emotional bonds, and develop a deeper sense of gratitude and spiritual resilience. Several participants described becoming emotionally and spiritually stronger as a result of accompanying the patient through the treatment process.

*"I've become stronger. I used to be spoiled, but now I must be strong for her…"* (P8)

*"This is all part of God's plan. I must be patient and sincere..."* (P12)

*"Maybe this is part of our life test—so that we grow closer to our family and to God."* (P3)

## Discussion

This study shows that the effects of chemotherapy on patients with breast cancer are not just psychological and physical [22, 23], but also put the family under a lot of stress because they are the primary caretakers [24–26]. The three primary themes the desire for knowledge, the unpreparedness of the family, and the immediate effects of chemotherapy form a connected and reinforcing cycle pattern.

Psychosocial stress in patients and their families has been widely linked to physical changes such as bodily weakness, hair loss, and sleep difficulties [27]. This experience translates into a substantial financial and psychological strain in Indonesia, where families are heavily involved in providing care. This supports the findings of Chong et al. [28], which show that chemotherapy-related side effects are more severe when families are not adequately prepared. The effects of chemotherapy on patients with breast cancer are multifaceted and affect not only the patients but also their families [22, 23]. Physical symptoms such as hair loss, nausea, vomiting, discomfort, and body weakness have an emotional influence on the patient's health as well as the family [24–26]. Caregiving is made more difficult by the family's lack of readiness to deal with these situations [29]. One of chemotherapy's most noticeable side effects that patients and their families may see firsthand is physical change. Constipation, diarrhea, vomiting, and nausea are examples of digestive diseases that frequently cause weight loss and decreased appetite. They also raise the risk of malnutrition, which in turn lowers the quality of life of both patients and family caregivers [30, 31]. Patients also commonly experience pain and sleep difficulties, which can exacerbate mental and physical issues [32]. Cancer patients' persistent pain and sleep deprivation are associated with weariness and elevated stress levels in both patients and caregivers [32]. Additionally, typical dermatological consequences include discolored nails, bruises, and hyperpigmentation, which can decrease self-esteem and necessitate particular attention from medical specialists [33]. Last but not least, patients' everyday activities are frequently restricted, and their reliance on family members is increased due to physical weakness and motor dysfunction, such as trouble walking or muscular stiffness [34].

The second theme focuses on the family's lack of readiness, which is evident when they are perplexed and unsure of how to act or react as the patient's symptoms and condition change [35]. The lack of knowledge and instruction about the adverse effects of chemotherapy has a direct influence on the family's preparedness and ability to adjust [36, 37]. Family members' ignorance of side effects may exacerbate anxiety and lessen the efficacy of offered assistance [38]. Families who are not informed from the start sometimes react emotionally to the patient's health without having a clear plan. Unpreparedness among caregivers is exacerbated by inadequate education, particularly when it comes to handling severe or persistent symptoms [39]. It has been demonstrated that active nursing staff involvement in family-based education and support improves caregivers' confidence and preparedness to deal with the effects of chemotherapy [40]. This lack of preparation also creates a need for practical advice and two-way communication with healthcare professionals.

The third theme is the necessity of sufficient information and assistance. These findings support the idea that families' lack of readiness is a reflection of the role crisis that is frequently disregarded in the cancer nursing system, rather than merely a matter of knowledge [41]. Anxiety and stress levels are typically greater among families who believe they do not receive enough explanations from medical personnel [42]. This is further supported by our results that families have a high informational requirement for psychological and physical side effects, symptom management, and how to effectively assist patients emotionally [43]. The significance of nursing education's contribution to improving families' preparedness for the cancer treatment process [44]. Families that receive proper information and support are less anxious and more resilient when dealing with the dynamics of change that arise throughout therapy [45]. Unmet information requirements also lead to families looking for information from other, sometimes unreliable sources, which results in gaps in decision-making. This is a special difficulty for nurses practicing oncology. As a result, a comprehensive and family-focused nursing strategy is essential for lowering the multifaceted burden of chemotherapy and enhancing families' preparedness and resilience during the breast cancer treatment process [46].

The fourth theme identified in this study is hope and the meaning of being a caregiver. The findings reveal that, beyond experiencing emotional and physical strain, families also discovered a renewed sense of purpose and existential meaning in their role as caregivers for breast cancer patients. Accompanying the patient throughout chemotherapy became a moment of reflection, allowing caregivers to cultivate gratitude, strengthen emotional bonds, and deepen their spiritual values. This aligns with the study by Ming et al. (2020), which reported that caregivers often undergo personal transformation through their caregiving roles, including greater acceptance and a deeper sense of life purpose [47]. Similarly, research by Panpan et al. (2021) found that caregivers who derive meaning from their caregiving experience tend to exhibit greater resilience and better coping abilities under stress [48]. This perspective resonates with Van Manen's phenomenological approach, which emphasizes the importance of exploring human experiences through a contextual and existential lens [49]. In this light, the role of family extends beyond merely carrying a burden it encompasses psychological and spiritual growth that occurs through caregiving. These findings underscore the importance of integrating reflective spaces and spiritual support within family-centered oncology nursing practice, enabling caregivers to experience their role not only as a challenge but also as a meaningful journey. These findings' ramifications emphasize how crucial it is to create organized training programs for breast cancer patients' families, especially during the initial phases of treatment. In order to provide a sense of security and increase the family's ability for adaptation, a comprehensive and family-centered nursing strategy is essential.

*Limitations*

This study has several limitations. First, the findings may not be generalizable because the study was conducted at a single hospital in Semarang, Central Java, Indonesia. Second, cancer stage was not differentiated among patients, which may influence the nature and intensity of family caregiving experiences during chemotherapy. Third, participants' openness during interviews may have been influenced by the sensitive nature of the topic.

*Implications for Practice*

These results highlight the value of a contextual and family-centered nursing approach in helping patients with breast cancer endure chemotherapy. Early education, open communication, family psychosocial support, and the use of culturally appropriate educational media are all essential components of nursing practice. To lessen the financial load, cross-sector cooperation is also required. With this strategy, families may actively contribute to enhancing patients' quality of life and resilience throughout treatment.

In conclusion, chemotherapy affects breast cancer patients and their families on a physical, emotional, and socioeconomic level. The lack of knowledge and assistance from medical personnel is intimately linked to the family's unpreparedness to deal with side effects. This study highlights the importance of family-based nursing interventions, including education, psychological support, and effective communication. To improve the preparedness, resilience, and quality of life of patients and their families throughout the cancer treatment process in Indonesia and other developing nations, a comprehensive, culturally sensitive, and family-oriented nursing approach is required.

## Author Contribution Statement

Dwi Retnaningsih: Writing – review & editing, Writing – original draft, Visualization, Validation, Methodology, Investigation, Formal analysis. Nursalam: Supervision, Methodology, Investigation, Data curation. Ferry Efendi: Conceptualization, Writing – review & editing, Validation, Methodology. Hanik Endang Nihayati: Writing – review & editing, Validation, Investigation. Kristiawati: Writing – review & editing, Validation, Resources. Dera Alfiyanti: Writing – review & editing, Validation, Methodology.

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*Declaration of competing interest*

The authors declare no conflict of interest.

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