

ORIGINAL RESEARCH

Coping Strategies of Women with Breast Cancer Undergoing Chemotherapy During the COVID-19 Pandemic: A Qualitative Study



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Abstract

Background: Chemotherapy is the primary treatment for breast cancer to prevent cancer progression, but health protocols, such as social distancing during the COVID-19 pandemic, hinder timely treatment. Although many qualitative studies have investigated the experiences of breast cancer patients during the COVID-19 pandemic, few have explored the coping strategies of women undergoing chemotherapy during this time.

Purpose: This study explored the coping strategies of women with breast cancer undergoing chemotherapy during the COVID-19 pandemic.

Methods: A qualitative phenomenological design was employed to explore the experiences of women living with breast cancer and their coping mechanisms. Purposive sampling was used to recruit participants who met the following criteria: (1) women diagnosed with breast cancer who had chosen to undergo chemotherapy and (2) women attending chemotherapy sessions at the treatment center. Patients with a history of severe chemotherapy side effects were excluded from the study. Data were collected through in-depth, semi-structured interviews with 25 participants, and transcripts were analyzed using thematic analysis.

Results: Four key themes emerged from the data analysis, including (1) feeling the uncertainty of life, (2) emotional turbulence, (3) surviving under pressure, and (4) accepting the situation. Participants demonstrated positive adaptive coping strategies to manage the challenges of breast cancer and chemotherapy during the COVID-19 pandemic.

Conclusion: Surviving and accepting conditions were identified as vital coping mechanisms that help women with breast cancer maintain their quality of life during the COVID-19 pandemic. These strategies play a crucial role in maintaining mental well-being amid uncertain and stressful circumstances.

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1. Introduction

Breast cancer is a highly complex disease that affects many women (Brock & Clippard, 2019). A report from the Global Cancer Observatory of the International Agency for Research on Cancer noted that breast cancer ranks first among all cancer types globally, with 2,261,419 cases (11.7%), and is the sixth leading cause of cancer-related deaths, with 684,996 fatalities (6.9%) (Sung et al., 2021). In Indonesia, breast cancer also ranks first among all types of cancer, with 66,271 cases (16.2%), and is the second leading cause of cancer deaths after lung cancer, with 22,598 deaths (9.2%) (WHO Global Report, 2022). These statistics highlight the substantial national and global burden of breast cancer, underscoring the need for effective treatment plans and comprehensive patient care. Among the available treatment options, chemotherapy remains a cornerstone in breast cancer management.

Although surgical treatment is available (Stahl et al., 2021), chemotherapy remains a leading choice for breast cancer patients to inhibit and prevent the spread of cancer cells (Claessens et al., 2020; Hanna & Mayden, 2021). Chemotherapy is often the only option for treating breast cancer, especially in stage IV cases (Hernandez-aya & Ma, 2016), despite the significant risks and side effects associated with it (Hiramoto et al., 2021; Saleh et al., 2020). Nevertheless, chemotherapy treatment programs for breast cancer patients should not be interrupted under any circumstances, as regular administration of chemotherapy helps reduce the effects of cancer progression (Hanna & Mayden, 2021; Hassen et al., 2022).

Despite the ongoing COVID-19 pandemic, many breast cancer patients continued with chemotherapy in order to comply with the agreed program (Budiarta & Brennan, 2022). However, some patients chose to give up and made no further efforts due to the threat of the pandemic (Özyer, 2023), whereas others experienced ambiguous feelings during chemotherapy because of the handling of COVID-19 policies (Soriano et al., 2021). Undergoing chemotherapy during the pandemic was a source of mental stress (Bartmann et al., 2021; Stanizzo et al., 2022), and pessimism regarding treatment outcomes became common (Rentscher et al., 2021), especially due to social restrictions that interfered with access to care (He et al., 2022). Additionally, the absence of encouraging developments in the disease they suffer from makes them feel unsure about life (Retnaningsih et al., 2021), and throughout the day, they are often filled with feelings of self-blame (Friedman & Barber, 2010). This situation had an impact on their quality of life (Hassen et al., 2019; Jin-hee Park et al., 2021). In response to these emotional challenges, many individuals with breast cancer turned to simple yet meaningful coping efforts, such as calming themselves (Seven et al., 2021), while also seeking information about when the COVID-19 pandemic might end (Amirav et al., 2021). Although these actions seem far from the long-awaited hope of recovery (Seven et al., 2021), fostering optimism amid uncertainty has proven to be an effective way to support the well-being of breast cancer patients during this difficult time. At the very least, such optimism can help increase self-confidence (Chiesi et al., 2022). Previous studies also reported that resilience plays a significant role as a defense against mental distress in people with breast cancer due to the COVID-19 pandemic (Hsu et al., 2021). In this context, self-confidence is an important tool to strengthen decision-making and acting (Brivio et al., 2021).

Although many qualitative studies have explored the experiences of breast cancer patients during the COVID-19 pandemic, few have specifically attempted to uncover their coping strategies during chemotherapy in this context. In line with this evidence, interest in qualitative research on breast cancer during the pandemic continues to grow, including studies on experiences during the first wave (Savard et al., 2021), perceptions of breast cancer detection (Meira et al., 2023), and the quality of life of breast cancer patients (Yip et al., 2024). Therefore, it is important to investigate the coping strategies of breast cancer patients undergoing chemotherapy during the COVID-19 pandemic. Furthermore, employing adaptive coping strategies by aligning available support with existing coping resources and understanding problem-solving approaches adjusted to the nature of stressors can help address uncertainties related to breast cancer (Hu et al., 2021; Kvillemo & Bra, 2014). To support the implementation of intervention programs, breast cancer patients could discuss their coping strategies for chemotherapy with nurses or other healthcare providers without violating applicable health protocols (Brivio et al., 2021; Türkcü et al., 2021). For this purpose, this study was conducted to explore the coping strategies of women with breast cancer undergoing chemotherapy during the COVID-19 pandemic.

2. Methods

2.1. Research design

This study used a qualitative phenomenological design to explore the coping strategies and lived experiences of women with breast cancer undergoing chemotherapy during the COVID-19 pandemic from the patients' perspective to generate a deeper understanding of the phenomenon in a real-life context (Creswell, 2014).

2.2. Settings and participants

The study was conducted in a public hospital in Surabaya, Indonesia. To access participants, mediation was obtained through the nurse on duty in the chemotherapy unit. The nurse assessed whether potential participants were willing to be approached by the researcher for an invitation to participate in the study. The researcher provided an information sheet for them to read, and

those who were willing to participate gave written consent. Participants were also encouraged to reflect on their general experiences and coping strategies and to discuss their situation during chemotherapy in the context of the COVID-19 pandemic.

The inclusion criteria were breast cancer patients who had decided to undergo chemotherapy and were present in the treatment unit to receive it. Patients who declined to participate or were unable to provide informed consent were excluded from the study. A purposive sampling technique was employed to recruit participants by selecting individuals based on their knowledge and experience to provide valuable insights related to the research objectives (Fives & Barnes, 2018). In this study, a diverse and representative sample was recruited to reflect the population of breast cancer patients in terms of age, cancer stage, and chemotherapy history in order to obtain meaningful experiences. Data saturation was used as the basis for final sampling. In this study, data saturation was achieved at the 23rd interview as no new information emerged (Braun & Clarke, 2017). Two additional participants were then interviewed to confirm the data saturation.

2.3. Data collection

The researchers (DM and SH) used an interview guide to remind them of the topics to be covered and to ensure that all key areas related to the coping strategies and experiences of women with breast cancer undergoing chemotherapy during the COVID-19 pandemic were addressed. They developed open-ended questions that served as thematic interview guides, including the opening question, “How do you feel about undergoing chemotherapy during the COVID-19 pandemic situation?” Some examples of relevant questions can be found in Table 1.

Table 1. Interview questions

The Interview Questions
1. How did you feel while undergoing chemotherapy treatment during the COVID-19 pandemic?
2. What are your hopes regarding the Covid-19 pandemic?
3. What obstacles did you experience while undergoing a treatment program during the COVID-19 pandemic?
4. What is your strategy to be able to complete chemotherapy treatment at this hospital?
5. How do you support your partner while undergoing chemotherapy treatment?
6. Do you have any other needs related to receiving chemotherapy services during the COVID-19 pandemic?

Individual face-to-face interviews with breast cancer patients were conducted in a semi-structured and in-depth manner to obtain comprehensive data on their experiences and coping strategies during chemotherapy. Interviews were conducted in a quiet, private room that had been prepared in advance in the chemotherapy unit. The researchers also complied with health protocols, including wearing masks and face shields, maintaining physical distance, and ensuring their body temperature was within the normal range (36.0 °C - 37.0 °C). Participants were given the option to stop the interview at any time if they wished. Individual interviews were recorded using a mobile phone, carefully transcribed, and supplemented with nonverbal responses documented in field notes for data analysis. The data were then reviewed to ensure accuracy.

After interviewing one participant, the researchers (DM and SH) collaboratively analyzed the data and discussed the relationship between categories to identify emerging themes. They then proceeded to interview the next participant, continuing this process until data saturation was reached. The compiled verbatim data were used for further analysis. Interviews were conducted from April to June 2021 and were attended by both researchers and participants, with each session lasting approximately 30 to 40 minutes.

2.4. Data analysis

The 7-step analysis method developed by Colaizzi (1978), including familiarization, identifying important statements, formulating meanings, clustering themes, developing an exhaustive description, and producing the fundamental structure, was used to interpret qualitative data obtained from interviews (Morrow et al., 2015). Data analysis was carried out by SH and DM, who also conducted the interviews and had previously agreed upon the contents of the interview guide. In this context, the researchers first read the interview texts independently

and repeatedly until they became familiar with the data and developed a deep understanding of the participants' narratives.

The researchers selected important statements from the interview texts, restated them, and expressed them in general terms. Then, implicit data within the comments were identified and analyzed. The researchers connected the categories based on the participants' experiences and consistently maintained thematic coherence by viewing each part in relation to the whole. Furthermore, the researchers formulated meanings, discussed them to reach an agreement, and validated them. The research findings were presented to the participants, and the accuracy of the themes and content was confirmed. Participant comments were also included to allow readers to verify the interpretation and analysis of the data. Additionally, the manuscript preparation process employed the COREQ checklist to ensure consolidated reporting of the study (Tong et al., 2007).

2.5. Trustworthiness/rigor

Credibility, transferability, confirmability, and dependability were considered to ensure research rigor. Credibility refers to the extent to which the original data and analysis output can be trusted (Creswell, 2014). During data analysis, researchers paid close attention to the original data by repeatedly listening to recorded interviews and reading and re-reading the transcripts multiple times before proceeding with the analysis. Each transcribed interview was returned to the relevant participant to invite comments and verify that the transcript accurately reflected their coping strategies and experiences. Transferability refers to the applicability of study findings to other similar contexts or populations (Morse, 2015), which was supported by providing a detailed description of the participants' demographic characteristics. Confirmability was ensured by providing comprehensive documentation of each step in the research process, including participant selection, interview procedures, transcription, data analysis, and interpretation (Morse, 2015). Dependability, which is comparable to reliability in quantitative studies, was addressed through rigorous sampling, participant validation, and accurate data analysis. To strengthen dependability, the researchers used personal journals and audit trails. Two researchers (SH and DM), who shared a common understanding of the study, conducted a stepwise replication by independently analyzing the same data. The findings were then compared, and no significant differences emerged (Morse, 2015).

2.6. Ethical considerations

This study obtained ethical approval from the Health Ethics Committee of Dr. Soetomo Surabaya Hospital (number 265/Panke.KKE/IV/2019, dated April 21, 2021). Informed consent was obtained from each participant after they agreed to participate. They were also informed of the study's purpose and significance, the topics to be discussed during the interview, the benefits and risks of participation, and their right to withdraw at any time during the data collection process. Furthermore, participants were informed that their interviews would be recorded and transcribed. Each interview and its corresponding transcript file were coded to ensure that participants remained anonymous to anyone outside the research team. The coded lists and transcripts were stored in the principal investigator's office, and audio and digital files of the interviews were stored on the principal investigator's password-protected laptop. Quotations cited were carefully screened to avoid revealing identifying information, and any names mentioned during interviews were replaced with codes or numbers.

3. Results

3.1. Participant demographic profile

The study involved 25 participants. The 46-50 age group was the most dominant, accounting for 36%, with nearly half (40%) working as housewives. Almost half of the participants (48%) were in stage III cancer. The frequency of chemotherapy sessions ranged from 2 times (16%) to 3 - 4 times (28%), and up to 6 times (4%). More details can be seen in Table 1.

3.2. Themes and categories

Four main themes emerged from the data that summarize the feelings and behaviors of breast cancer patients related to coping strategies during chemotherapy in the COVID-19 pandemic: (1)

Feeling the uncertainty of life, (2) Emotional turbulence, (3) Surviving under pressure, and (4) Accepting the situation. The complete data are presented in Table 2.

Table 1. Participant demographic profile

Participant Codes	Age	Employment	Stadium	Chemotherapy Frequency
1	34	Government employee	III	2
2	36	Housewife	III	3
3	46	Housewife	II	2
4	50	Government employee	IV	5
5	49	Housewife	IV	5
6	55	Government employee	II	4
7	26	Entrepreneur /Company	III	5
8	53	Entrepreneur/Company	IV	5
9	54	Government employee	II	5
10	46	Housewife	III	4
11	44	Housewife	IV	4
12	55	Government employee	III	3
13	59	Entrepreneur/Company	IV	3
14	58	Entrepreneur/Company	IV	4
15	60	Government employee	III	5
16	47	Government employee	IV	6
17	48	Housewife	III	2
18	45	Housewife	II	2
19	44	Entrepreneur/Company	IV	3
20	37	Housewife	III	3
21	47	Government employee	IV	4
22	48	Housewife	III	3
23	49	Entrepreneur/Company	III	4
24	60	Government employee	III	3
25	56	Housewife	III	4

3.2.1 Theme 1: Feeling the uncertainty of life

The theme of feeling the uncertainty of life is grouped into three categories: not knowing what to do, hesitation to act, and waiting for a solution.

Table 2. Structure of themes and categories

Themes	Categories
Feeling the uncertainty of life	Not knowing what to do Hesitation to act Waiting for no solution
Emotional turbulence	Mental disorder Pessimism
Surviving under pressure	Forgetting dreams Diverting attention Optimizing personal resources
Accepting the situation	Following what would and had happened Getting rid of hatred Surrendering to God

3.2.1.1 Category 1: Not knowing what to do

Some breast cancer patients reported feeling at a loss for what to do. COVID-19 made them afraid of getting infected if they left the house, but chemotherapy treatment required them to come to the hospital. As a result, they felt confused and afraid. This is how they expressed their confusion:

The first time I came here (hospital), I was conflicted between going and staying home because the information I got was that COVID-19 was more aggressive than the disease I had. However, because this treatment (chemotherapy) is the best way to recover, I was

determined to come to the hospital, even though I was filled with anxiety. I don't know what I should do next if this disease (COVID-19) gets out of control.” (P-14)

3.2.1.2 Category 2: Hesitation to act

Participants reported that, due to the contagious nature of COVID-19, they were filled with doubt. They weighed the benefits of treatment against the risks of contracting COVID-19. Participant 21 stated:

“I am hesitant to continue my treatment ... The news on television about the many deaths due to COVID-19 adds to my confusion in taking a stance between continuing treatment or stopping treatment ... It feels like a choice between life and death.” (P-21)

In addition, the COVID-19 pandemic has caused breast cancer patients to lose confidence in the benefits of chemotherapy. One participant said:

“I feel that the efficacy of the treatment I am undergoing (chemotherapy) has decreased significantly due to the influence of COVID-19, and I felt this after several times I received treatment (chemotherapy) ... I have stories from fellow fighters that their conditions have declined during the COVID-19 pandemic, and this adds to my worries. I don't know if they died or are still alive.” (P-20)

3.2.1.3 Category 3: Waiting for no solution

Several participants expressed that the implementation of social restrictions due to the COVID-19 pandemic made them feel uncertain about their chemotherapy treatment, leading to resignation and hopelessness. A participant expressed his anxiety:

“If I go to the hospital, I am afraid of getting COVID-19, but if I have to stay at home to comply with the implementation of social restrictions, I cannot get chemotherapy treatment. The current situation bothers me; maybe I am just waiting for my turn when I will die.” (P-14)

Meanwhile, other participants also shared that the COVID-19 pandemic had dashed their hopes of recovery, leaving them with no other initiatives to pursue. A participant stated, *“Until now, there has been no proper solution for my disease. I am undergoing this treatment (chemotherapy) to comply with the rules of treatment. There is nothing for me except waiting for a miracle.” (P-11)*

3.2.2 Theme 2: Emotional turbulence

This theme is grouped into two categories: mental disorder and pessimism, both of which reflect the psychological impact experienced by breast cancer patients during the COVID-19 pandemic. The following sections elaborate on each category.

3.2.2.1 Category 1: Mental disorder

Some participants described unpleasant experiences with chemotherapy during the COVID-19 pandemic, resulting in overwhelming sadness and anger that caused significant mental pressure so that they could not free themselves from feelings of terror. A participant stated, *“I want to scream, but who should I blame? If I just keep quiet, who will guarantee my recovery? The current COVID-19 pandemic has become a terrifying ghost for the continuation of my treatment” (P-10).*

This situation left many breast cancer patients unable to concentrate and burdened by intense mental pressure. One participant expressed, *“I can't think clearly about the problems I face, I'm sad and confused, and I want to be angry all the time, and this is what I often feel” (P-06).* In addition, another participant shared:

“I don't know when this COVID-19 pandemic will end. I hope to get further treatment, but I feel it might be very difficult to get that opportunity. I can't predict when the COVID-19 will go away, and I just hope to get further chemotherapy soon.” (P-03)

3.2.2.2 Category 2: Pessimism

Some participants also felt deeply pessimistic about their treatment due to the COVID-19 pandemic, which created uncertainty and disrupted treatment schedules. They found it difficult to predict when the COVID-19 pandemic would end, and this was a barrier for breast cancer patients to continue treatment. One participant stated: *“Can I get chemotherapy later so that my condition can improve?”* (P-17). Another participant expressed:

“I’m tired; there’s nothing I can do... The COVID-19 pandemic means this chemotherapy might be my last treatment because there must be stricter policies. The spread of COVID-19 is widening and becoming less controlled, which is very difficult for me.” (P-03)

3.2.3 Theme 3: Surviving under pressure

This theme consists of three categories, including forgetting dreams, diverting attention, and optimizing personal resources.

3.2.3.1 Category 1: Forgetting dreams

Some breast cancer patients recognized that their treatment might not lead to a complete cure because their disease is terminal. This awareness led them to let go of certain hopes and future plans. Instead of thinking about long-term goals, they chose to focus on following the treatment as recommended by health professionals. One participant stated:

“I don't think I'm cured ... I just want my chemotherapy schedule to follow the doctor's recommendations; that's enough for me... I'm lucky to have survived this long. I see many friends who have this disease have died.” (P-08)

Another participant (P-02) expressed a similar view. For her, the purpose of chemotherapy was no longer to be cured but to extend life. She chose to trust the medical team and did not expect more than what the treatment could offer. She said, *“I know that my disease has no effective treatment anymore... This chemotherapy is only to prolong my life. I just follow the staff's recommendations ... That's all I can do.”* (P-02)

3.2.3.2 Category 2: Diverting attention

Some participants attempted to distract themselves from the illness by staying active at home during the pandemic. Doing something meaningful helped them avoid thinking too much about their condition. One participant shared that focusing on her child gave her strength and helped her forget the pain and worries about her illness. She stated:

“My child is my only hope... At home, I focus entirely on my child's future by helping with schoolwork. If my child goes to school, I prepare the school supplies and take him there. That way I can be comfortable and forget about my illness.” (P-07)

Other participants stated that they focused on their physical health as a means of coping. Even though chemotherapy caused side effects like loss of appetite, participants pushed themselves to eat and stay strong. Participant 18 stated, *“The point is I have to eat to keep my body healthy... due to chemotherapy, my appetite usually decreases, but I have to eat, and I force myself to eat little by little”* (P-18). For this participant, eating became an effort to fight against weakness and support her recovery. Although it was not easy, she made a conscious effort to care for her body.

3.2.3.3 Category 3: Optimizing personal resources

Several breast cancer survivors noted that strengthening their beliefs while undergoing chemotherapy during the COVID-19 pandemic had a positive impact on maintaining mental health, and this made them calmer. Participants also mentioned that mental health management contributed to an improved improving their quality of life. One participant stated, *“I am sure that if I undergo chemotherapy treatment according to the doctor's advice, this illness can be cured”* (P-15). Similarly, P10 said, *“I consider my illness like any other illness, nothing more than that”* (P-10). Another participant (P-11) expressed:

“The important thing is not to think about the disease. I am relaxed and never think badly about my illness. When I am told to undergo chemotherapy treatment, I just obey and comply... I just go with the flow, so it is not a burden for me.” (P-11)

3.2.4 Accepting the situation

This theme includes three categories: Following what would and had happened, Getting rid of hatred, and Surrendering to God.

3.2.4.1 Following what would and had happened

This theme reflects a high level of self-acceptance among breast cancer patients during the pandemic, which became a key factor in maintaining their mental well-being. As a result, they did not feel anxious, afraid, or depressed while undergoing treatment, as they chose to accept and follow both what had happened and what was to come. This mindset helped strengthen their beliefs. One participant stated, *“I try my best to follow all the doctors’ recommendations for treating my illness because they know how to treat my illness” (P9)*. Another participant also shared, *“I know the chemotherapy treatment that I undergo twice a week is the last resort to treat my illness... I am ready to be taken by death at any time” (P-12)*.

3.2.4.2 Getting rid of hatred

Participants expressed that, during the COVID-19 pandemic, they made a conscious effort not to place blame, neither on others nor on themselves, as a way to protect their mental well-being and avoid prolonged stress. One participant shared her perspective where she emphasized avoiding blame, even during very stressful situations:

“No one can be blamed for all the conditions I am experiencing ... The doctor is excellent, the nurse is very friendly, and the other staff members are very responsive. I have received extraordinary service. It’s just that this disease is not friendly to me, so my condition remains like this.” (P-06)

3.2.4.3 Surrender to God

Some participants tried to get closer to God by prioritizing a spiritual and religious approach. This was how they expressed their sense of surrenderer to a higher power. One participant shared, *“I believe that illness is a trial and not a path to death” (P-22)*. Another participant also stated, *“Being patient and always obeying God’s commands is more important than thinking about my illness” (P-04)*.

Likewise, others accepted their illness as a part of God’s will and chose to submit fully to it; as one participant said, *“I am ready to be tested by God with any illness, even if it is a serious illness like the one I am currently experiencing” (P-07)*. Another expressed complete acceptance by saying, *“Life belongs to God, and even if asked today, I am ready” (P-05)*. These statements indicate that for many participants, faith provided them with strength and peace. Trusting in God helped them accept their condition and continue facing their illness with patience and courage.

4. Discussion

The purpose of this study was to explore coping strategies of breast cancer patients receiving chemotherapy during the COVID-19 pandemic. Four main themes emerged from the data, which show how participants navigated their experiences: (1) feeling the uncertainty of life, (2) emotional turbulence, (3) surviving under pressure, and (4) accepting the situation. These themes capture the multifaceted emotional and psychological reactions of breast cancer patients as they dealt with the stress of the pandemic in addition to the difficulties of cancer treatment.

4.1 Feeling the uncertainty of life

Breast cancer patients in this study deeply felt the uncertainty about when the COVID-19 pandemic would end, which led to depression and emotional suffering, as also reported by Wu et al. (2021). During the pandemic, many perceived their health as worsening (Supriati et al., 2022), a concern similarly observed in patients with other chronic diseases (Makhfudli et al., 2022; Younossi et al., 2022). Social interactions were limited to prevent the spread of the virus, leading

to the implementation of physical distancing measures (Fikrie et al., 2021). This condition heightened anxiety among breast cancer patients, who feared contracting COVID-19 while undergoing therapy (Singer et al., 2015). Feelings of hopelessness, often tied to the uncertainty of life during the pandemic, were also reported in this study and supported by Chen et al. (2022).

Unlike previous studies, which have mostly focused on public perceptions of the spread of COVID-19 and reported a limited understanding of how to respond (Gebretsadik et al., 2021; Sujarwoto & Holipah, 2022), this study revealed deeper emotional impacts on breast cancer patients. Earlier research also noted that public messages frequently emphasized “keeping your distance” without providing concrete explanations about COVID-19 (Kumar et al., 2021). In line with previous studies, the risk of not being able to undergo chemotherapy according to schedule was also experienced by breast cancer patients due to the spread of COVID-19 (He et al., 2022), and this increased feelings of helplessness since the situation they faced became a barrier to fulfilling their need for regular chemotherapy (Hassen et al., 2022). Likewise, other studies reported that the pandemic often caused indefinite delays in chemotherapy, adding to the complexity of lives (Swainston et al., 2020), as women with breast cancer were burdened with mental stress throughout the day (Chavez-Macgregor et al., 2015). Overall, this study strengthens the experiences of women with breast cancer undergoing chemotherapy during the COVID-19 pandemic, which affected their emotional and mental health. As a result, some patients had to find alternative coping strategies to maintain their well-being (Bartmann et al., 2021).

This study also revealed that unmet expectations became an unpleasant experience during the pandemic. Other previous studies have also reported similar situations during the COVID-19 pandemic, where people were discouraged from leaving the house due to fear of infection (Cerdeira & García, 2021; Koiwa et al., 2022), which disrupted scheduled chemotherapy programs (Lee & Heo, 2022). In line with this research, helplessness was experienced by many women with breast cancer (Retnaningsih et al., 2021), and feelings of anxiety, fear, and depression due to their illness became part of their lives during the pandemic (Obispo et al., 2022). Likewise, as experienced in other terminal illnesses, the fear of being infected with COVID-19 exceeded the fear of the disease itself (Alkouri et al., 2022; Yu et al., 2021). However, in the present study, even though the fear of contracting COVID-19 continued to haunt their minds, participants chose to undergo therapy while adhering to health protocols because that was the only path available (Vohra et al., 2021).

Findings that nurses should pay attention to, as reported in this study, include that women with breast cancer felt confused and expressed phrases like “do not know what to do.” Others expressed hesitation by saying “hesitating to act” as the COVID-19 pandemic became a significant barrier to undergoing chemotherapy. This illustrates that some breast cancer patients experience life-threatening events (Lissidini et al., 2022). Meanwhile, threats to self-integrity caused by breast cancer, such as damage to body image due to hair loss, breast problems, or changes in body weight due to chemotherapy, put mental stress all day long (Chen et al., 2022), affecting their quality of life (Biparva et al., 2022; Mohammed et al., 2019). That is why people with cancer generally have a decreased quality of life due to the systemic immunosuppressive properties caused by tumors directly and indirectly by the effects of anti-cancer treatment (ElGohary et al., 2022), and which will probably decrease further as the COVID-19 pandemic prevents them from receiving regular chemotherapy (Liu et al., 2020). Another study even reported that patients had to be re-hospitalized despite undergoing regular chemotherapy because their physical became too weak (Wangchinda & Ithimakin, 2016). Thus, exploring the feelings, hopes, and coping efforts of women with breast cancer is essential to understanding their problems. Allowing individuals to express their feelings can provide satisfaction and relief (Dewi et al., 2020; Nyblade et al., 2020), and understanding those feelings is crucial for nurses to offer an empathetic response (Vliet et al., 2019; Westendorp et al., 2020). For this reason, the end-of-life nursing approach is highly relevant for these patients as it can provide peace and help them prepare for death (Adler et al., 2019; Fond et al., 2021).

4.2 Emotional turbulence

This study also revealed emotional turmoils experienced by breast cancer patients, reflected in chaotic thoughts and pessimistic feelings as excessive emotional responses during the COVID-19 pandemic. In this study, some women with breast cancer reported a “saturation point” as emotional turbulence in dealing with their illness, making them vulnerable to suicidal thoughts (Koca et al., 2022). Additionally, some reported self-neglect by deciding not to seek treatment and

relying on alternative treatments because they feel helpless (Bener et al., 2017; Kvillemo & Bra, 2014; Öztunç et al., 2013). In the context of the COVID-19 pandemic, the presence and support of family are highly anticipated (Brivio et al., 2021).

However, some women with breast cancer responded with self-acceptance. They consistently believed that chemotherapy was the most effective way to cure their disease while hoping that the pandemic would end soon so they could continue chemotherapy, as it was their only option to relieve their suffering (Kudjawu & Agyeman-Yeboah, 2021). This aligns with their expectations that chemotherapy would help alleviate their condition (Li et al., 2021). These findings emphasize how emotionally complex the pandemic was for breast cancer patients and how crucial psychological support is for promoting acceptance and resiliency during the treatment.

4.3 *Surviving under pressure*

This study showed that some participants had alternative ways of coping with the subtlety of their thoughts, and avoiding them when under pressure was considered the most effective strategy, as it involved diverting attention and forgetting the dreams. It is interesting because stressful situations did not make them panic, but on the contrary, with this attitude, some people with breast cancer felt better because they were free from pressing demands (Afrashteh & Masoumi, 2021). The findings are supported by previous studies that report a link between the application of positive psychology and the quality of life of breast cancer patients (Abu-helalah et al., 2014). Other findings also showed that self-acceptance was the best choice for breast cancer patients during the COVID-19 pandemic, as they continued their treatment programs according to the schedule (Faizah et al., 2021).

Women who had experienced other chronic illnesses believe that “consistency” was necessary when COVID-19 became highly infectious as it could affect their lives significantly (Bonenkamp et al., 2021; Howie-Esquivel et al., 2020), and being in crowded places also increased the risk of COVID-19 infection (Glogowsky et al., 2021). In such conditions, the presence of nurses becomes crucial so that breast cancer patients can express their feelings and obstacles and discuss the coping strategies they can use to solve their problems (Chan et al., 2020). Furthermore, through therapeutic communication techniques, nurses strive to open up and jointly find the best solutions, particularly in managing emotions to achieve better well-being (Thomsen et al., 2009; Vogel et al., 2009). In the context of the nurse-patient relationship, the presence of nurses is highly anticipated to help patients open up about the problems they face and feel safe and comfortable (Molina-mula & Gallo-estrada, 2020; Unhjem et al., 2017). The optimization of personal resources is crucial for ensuring the welfare of individuals who experience prolonged mental stress (Freire et al., 2016), as also reported in this study. The exploration of individual and environmental resources can help reduce mental distress and inform the selection of adaptive coping strategies based on the type and quality of the stressor (Listiawan et al., 2022).

In line with their attitude during the COVID-19 pandemic, some women with breast cancer try to take a safe path by letting their disease progress without taking a proactive stance to resolve it to maintain their well-being. This attitude of omission is evident in consistently accepting what has happened and will happen. As in other chronic disease research, when the COVID-19 pandemic becomes a terrifying drama, they feel powerless and make no effort to fulfill their expectations (Charos et al., 2022), surrendering to God’s will (Clements & Ermakova, 2012; Piwko, 2021), as also reported in this study. Meanwhile, other studies have reported that they are ready to be taken by death at any time because their condition has not improved during the COVID-19 pandemic (Makhfudli et al., 2022). This situation reflects the severity of the problem, and there is no other strategy they can use to resolve it; thus, avoidance becomes the best option (Spencer-Laitt et al., 2022). Meanwhile, other studies have reported that individuals with other terminal illnesses never say “give up” in seeking medical assistance and continue to undergo treatment programs despite social distancing (Folmer et al., 2021). This is done in an effort to cure their illness, as it is the only available path (Vo et al., 2020). They surrender all that has been done for the sake of results rather than effort, and thus, they can motivate themselves to rise from adversity by always seeking health service assistance (Ahmed et al., 2021).

4.4 *Accepting the situation*

Another coping identified in this study to eliminate the stress due to difficulties in undergoing chemotherapy during the COVID-19 pandemic was to accept the situation. This acceptance was

demonstrated by letting go of hatred and refraining from blaming others in the face of highly stressful situations, such as the pandemic. This attitude is particularly relevant and interesting to discuss, as it aligns with coping strategies observed in individuals with other chronic diseases in their pursuit of better mental health (Dymecka et al., 2023) while also seeking relief from their symptoms (Makaremnia et al., 2021).

Previous studies have also discussed the importance of “getting rid of negative thoughts” when dealing with complex problems during the COVID-19 pandemic, with the hope that such efforts would yield better results, and this attitude has proven to be an effective way to recover from adversity (Ardhiani et al., 2021; Sangeetha & Umadevi, 2022). Furthermore, some researchers suggest that getting rid of negative thoughts fosters a “relationship of trust” and creates “warmth” in nurse-patient interactions, enabling patients to freely express their emotions and receive appropriate responses from nurses (Zahry & Besley, 2021).

In the early stages of the COVID-19 outbreak, the general public experienced heightened emotional distress because of the amount of information they received about deaths due to the COVID-19 pandemic (Mozes et al., 2021; Richardson et al., 2022), leading to feelings of powerless (Lampraki et al., 2022). In such contexts, a non-blaming and open attitude becomes significant for quick problem-solving (Miller et al., 2021). Moreover, for many patients, continued surrender to God while hoping for the best outcomes represents a final choice for their attitude when COVID-19 becomes a serious concern in their environment. Through this surrender, they can find peace and achieve a prosperous life (Rachmawati et al., 2022).

5. Implications and Limitations

The findings of this study can serve as a basis for nurses to provide social support to breast cancer patients undergoing chemotherapy during the COVID-19 pandemic or in similar situations in the future. Social support should be tailored to patients’ specific needs, coping abilities, and life circumstances. Nurses should help women with breast cancer adapt to life changes caused by their illness and the side effects of treatment so they are better prepared for any future challenges. Healthcare professionals can also provide counseling to help women with breast cancer accept changes in their life situations and communicate openly with their loved ones for better emotional support.

However, this study has limitations. The interviews were conducted retrospectively, which may have affected the accuracy of the participants’ memories. Although women participants were interviewed an average of one year after diagnosis, the majority had records of their treatment schedules on their control cards. The fact that only one hospital was included may limit the applicability of the data to all women in Indonesia; nonetheless, the hospital is a significant healthcare facility serving a large geographic area in the eastern part of the country. The usual chemotherapy treatment for women consists of one of two types of chemotherapy, which are the standard forms offered to women with breast cancer in Indonesia. This may not be generalizable to other countries that offer different treatments for breast cancer. Furthermore, this study was conducted in Indonesia; thus, cultural factors unique to Indonesia also influenced participants’ experiences.

6. Conclusion

These findings of the present study highlight the importance of enduring stressful situations and accepting whatever happens as a form of mental defense for women with breast cancer against feelings of uncertainty caused by the disease. This coping strategy is effective in improving their quality of life. Furthermore, the findings can contribute to the development of psychosocial services for breast cancer, especially in the field of psycho-oncology services. Future research should take into account longitudinal designs that involve multiple interviews conducted during various chemotherapy phases to capture dynamic coping responses. It is also recommended to incorporate hospitals from different parts of Indonesia in order to improve generalizability and represent more extensive sociocultural and healthcare contexts.

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Author contribution

SH and DM designed the study, collected data, and prepared the first draft of the manuscript. NS contributed to the study design and revised the manuscript. AN and DS participated in the study design, data collection, and manuscript revision. CRP and NN were involved in the research design and manuscript revision. HIM and AM contributed to data collection and manuscript revision. ES prepared the first draft of the manuscript and revised it. All authors read and approved the final manuscript.

Conflict of interest

The authors have no conflict of interest.

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