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Symptom Severity, Anxiety, Family Support, and Resilience among Breast Cancer Patients Undergoing Chemotherapy

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ABSTRACT

Purpose: The purpose of this study was to investigate the direction and intensity of the association between symptom severity, anxiety, and family support and the resilience of breast cancer patients undergoing chemotherapy. **Method:** The quantitative study employed a cross-sectional design with correlational analyses. 107 breast cancer patients receiving chemotherapy in hospitals around Aceh Province were engaged. Participants were chosen using the sequential sampling method. The data were evaluated using Pearson correlations.

Results: The study found a negative and weak association between symptom severity and resilience ($r -0.249$; $p 0.010$), and a negative and substantial relationship between anxiety and resilience ($r -0.569$; $p < 0.001$). There was a positive but weak relationship between family support and resilience ($r 0.184$; $p 0.049$).

Conclusions: The resilience of breast cancer patients undergoing chemotherapy is closely linked to symptom severity, anxiety, and family support. Recommendations to oncology nurses for the development of various nursing treatments, such as pain management optimization, relaxing techniques, and patient empowerment and education.

INTRODUCTION

Breast cancer is the most often diagnosed cancer. Breast cancer killed 670,000 people worldwide by 2022[1]. In comparison, the mortality from breast cancer in Asia (50.5%), Europe (20.7%), and the Americas (15.5%) [2]. According to the Ministry of Health of the Republic of Indonesia in 2020, breast cancer was the most common type of cancer in Indonesia, particularly among women [3]. According to data from the Aceh provincial health office, there will be 1,318 breast cancer cases in Banda Aceh by 2022 [4]. Breast cancer is a condition caused by the proliferation of aberrant cells in the breast, resulting in uncontrolled growth and division and the formation of a tumor or cancer [5]. Breast cancer is caused by hormonal changes, genetic susceptibility or mutations in the breast cancer gene (BRCA), infections,

advancing age, alcohol consumption, food, inactivity, obesity or overweight, smoking, environmental factors, and family history [6],[7].

Breast cancer is managed based on its stage and type. Surgery, hormone therapy, radiation, targeted therapy, and chemotherapy are some of the treatment options. Chemotherapy is a sort of treatment that slows and stops the abnormal growth of cancer cells and can be used in conjunction with other treatments.[8]. Chemotherapy is highly effective at controlling cancer cell proliferation in many circumstances, but it is also associated with a number of patient-reported adverse effects. These side effects range from mild to severe [9]. Patients taking chemotherapy frequently report both physical and psychological side effects, including symptoms of weariness, poor physical health, diminished functional well-being, decreased emotional well-being, and deteriorated social well-being[10]. The high expense also has an unfavorable effect on patients' physical, emotional, and social functioning. In addition, most post-chemotherapy patients report anxiety [11], nausea and vomiting [12], pain and cognitive impairment.

Chemotherapy in breast cancer typically takes a long time and has a variety of side effects that might impair physical, psychological, and personal integrity. High resilience is required to face these problems [13]. Resilience is an individual's ability to cope with self-acceptance to face many negative conditions, attempting to get back up and be able to overcome unpleasant experiences [14]. High resilience improves treatment adherence, but low resilience leads to non-adherence. Increased resilience can improve and maintain patients' mental health and provide a better quality of life [15]. High resilience among cancer patients has been associated to cancer progression [16]. A thorough understanding of treatment, education, and immune function can improve insight and knowledge in relation to the demands of breast cancer patients. This promotes the patient's adjustment and adaptation to cancer, as well as increasing treatment adherence [17]. Another study found that the more an individual's resilience, the greater their ability to cope with self-acceptance in the face of numerous negative conditions, attempting to get back up and overcome painful experiences. Breast cancer patients' well-being during chemotherapy. This is acquired through health education given to patients [18].

However, numerous studies have found minimal resilience in breast cancer patients taking chemotherapy. In a previous study, 38% of the 74 patients had low levels of resilience.[19]. The same information was acquired from the findings of research on breast cancer patients receiving chemotherapy, which revealed that the majority of responders (88%) show moderate resilience. Low resilience leads to psychiatric issues in patients.[20]. Low resilience has a significant impact on the daily lives of sufferers [21].

Previous research has found several characteristics associated with resilience in breast cancer patients following chemotherapy. Anxiety is related with resilience, despite study conducted on diverse oncology patients receiving chemotherapy [22], family support [23], spirituality [24], and side effect of chemotherapy during pandemic of Covid-19 [25] also related with resilience. Side effects that arise in breast cancer patients following chemotherapy allow for a loss in resilience in patients, impair health status, role constraints, and eventually affect poor quality of life [26]. Patients with high resilience demonstrate a decrease in anxiety compared to patients with low resilience [27]. Patients who are not complying with cancer therapy can be caused by excessive anxiety and unpleasant emotions of discomfort [28].

Family support is critical for patients undergoing treatment. High family support indicates a high level of adherence to treatment. Family support enables patients and families to handle stress and make the best medical decisions for patients. This indicates good resilience [29]. Family support is essential for cancer patients' treatment and adaptation. Family assistance can improve patients' quality of life. Family support, both financially and physically, can improve patients' psychological and emotional well-being and strengthen their resilience [30]. Family support and resilience are associated to lower anxiety levels in chemotherapy patients. The presence of familial support can improve individuals' capacities to perform positive things. High family support can boost patients' self-confidence [3].

The issue of resilience is undoubtedly one that must be addressed. However, no research has been identified in Aceh province that investigates resilience by looking into the elements that influence resilience, particularly in breast cancer patients undergoing chemotherapy. As a result, this study will investigate resilience in breast cancer patients receiving chemotherapy, as well as factors influencing it, such as symptom severity, anxiety, and family support.

METHOD

Study Design

The research is a quantitative cross-sectional study using correlational analysis. This study investigates the relationship between symptom severity as a side effect of chemotherapy, anxiety, and family support and the resilience of breast cancer patients enduring chemotherapy.

Population and Sampel

This study included all breast cancer patients who had undergone chemotherapy. 340 breast cancer patients received chemotherapy between April and June 2023. Every day, 5-6 patients undergo chemotherapy. The number of samples in this study was estimated using the estimation formula from Lameshow [32]. One hundred and six (106) samples were acquired using the consecutive sampling technique between April and May 2024. Inclusion criteria for the sample included patients aged 18 or older, marriage, at least one cycle of chemotherapy, composition is consciousness, and no impairment in verbal communication. Exclusion criteria were: a) patients with deteriorated physical and psychological states; b) patients with significant consequences such as shortness of breath, severe pain, severe metastases, and others.

Instruments

The instruments used in this study consisted of a demographic data questionnaire

1. The Chemotherapy Symptom Assessment Scale (C-SAS) is used to evaluate the clinical state of individuals who have undergone chemotherapy. The C-SAS instrument is a scale that assesses the clinical state of chemotherapy patients based on the signs and symptoms they experience as a result of chemotherapy side effects. This instrument consists of 23 questions with yes/no answers. There are 8 questions on digestive system indicators (1,2,3,4,5,13,14, and 15), 2 questions on comfort indicators (6 and 19), 1 question on respiratory system indicators (7), 3 questions on immune system indicators (8,17,18), 1 question on hematology system indicators (9), neurological system indicators (10 and 20), integumentary system indicators (11 and 12), visual system indicators (16), reproductive system indicators. If the respondent answers "yes", it will be awarded a score of 1, but if he answers "no", it will be given a score of 0 [33]. Sugo et al. (2019) translated this questionnaire into Bahasa Indonesia and evaluated its validity and reliability. All r counts $>$ r table (0.632), hence they are considered valid. The reliability test has a Cronbach alpha value of 0.947, indicating that it is very reliable. The total score ranges from 0 to 23. When classified into three categories: mild (scores less than 7), moderate (7-13), and severe for scores more than 14 [34].
2. Hospital Anxiety and Depression Scale (HADS) to assess anxiety. The Zigmond and Snaith invented the HADS instrument in 1983. It was intended to assess anxiety and depression in hospitalized patients. The questionnaire consists of seven items for anxiety and seven for depression. Each item has a score ranging from 0 to 3, with three representing the most severe anxiety or sadness. Scores varied from 0 to 21. The HADS testing findings for anxiety are classified as normal if the score is 0-7, borderline abnormal if the score is 8-10, and abnormal if the score is 11-21. Caninsti (2013) assessed the validity and reliability of the Indonesian version of the HADS. All 7 items in the anxiety subscale have a corrected item total correlation value greater than 0.3 ($r \geq 0.3$). As a result, all items on the anxiety subscale can be considered legitimate. Cronbach's alpha for the anxiety subscale, which has seven items, is 0.7382. These results show that the measuring equipment in this sub-scale is fairly reliable [35].

3. Family Support Questionnaire to assess family support. The Family Support Questionnaire was adapted from Nira's 2020 research, which was compiled using Friedman's idea of family evaluation. This questionnaire contains 16 questions and four indications: information support in questions 1-4, emotional support indicators in questions 5-8, instrumental support indicators in questions 9-12, and appreciation indicators in questions 13-16. The questionnaire employs positive statements, with the lowest score of 1 for "never" and the highest score of 4 for "always". The minimum total score is 16, while the greatest total score is 64. A proportion of 76-100% indicates good family support, 56-75% indicates adequate assistance, while <56% indicates insufficient support. The questionnaire's validity was tested with a range of 0.670 to 0.945. All r counts exceeded r table (0.632). Therefore they were pronounced valid. The Cronbach alpha value of 0.962 indicates strong reliability [36].
4. Connor-Davidson Resilience Scale (CD-RISC) Questionnaire to measure resilience. CD-RISC25 is a questionnaire designed to assess an individual's ability to thrive in the face of adversity. Connor & Davidson devised this questionnaire in 2003. This questionnaire contains 25 items and five indicators: meaningfulness, equanimity, perseverance, self-reliance, and existential aloneness. Each signal corresponds to five questions. Several researchers from China, Japan, Thailand, India, and Singapore have utilized this questionnaire to assess resilience in a variety of adult disorders, including post-stroke impairment and other conditions. The CD-RISC25 consists of 23 positive statements and two negative statements (items 9 and 22), each with four alternative answer options: never, sometimes, often, and always. Positive statements are scored from 1 (never) to 4 (always). Meanwhile, the score for negative statements is 1 for always and 4 for never. Minimum score is 25 and highest score is 100 [37]. In Indonesia, Nira et al. (2020) employed this questionnaire and examined its reliability on breast cancer patients. The reliability test result is 0.870, which indicates that it is extremely reliable. High resilience is defined as a proportion of 76-100%, moderate resilience as 51-75%, and poor resilience as 50% [36].

Data Collecting

The data collection procedure begins with finding possible responders who meet the requirements. The researcher went into great depth about the research, its benefits, how to participate to it, and the potential losses that responders could face. The researcher then requested the patient's agreement to participate in the study. Those who are willing should sign an informed consent form. Furthermore, respondents completed the research questionnaire within 15-30 minutes.

Ethical consideration

All procedures in this study were carried out after acquiring evidence of passing the research ethics test on human samples with number 280/ETIK-RSUDZA/2023

Data analysis

Univariate analysis was performed to describe the characteristics of the respondents as well as the variables identified. Furthermore, all variables were checked for normality using the Kolmogorov-Smirnoff test. The results all follow a normal distribution. Pearson correlation was used to determine the strength and direction of the link between the variables.

RESULTS AND DISCUSSION

CHARACTERISTICS OF RESPONDENTS

The average age of respondents was 47.53 ± 11.06 years, they were all muslim, 84.1% had a partner, 44.9% had secondary education, 53.3% did not work, 33.5% had no income, 58.9% had chemotherapy cycles 1-3, and 81.3% lived with family.

Table 1. Characteristics of Respondents (n=107)

No	Characteristics	Frequency	Percentage
1.	Age, year		
	Mean \pm SD	47.53 \pm 11.06	
	Late adolescent (17-25 year)	3	2.8
	Early adult (26-35 year)	11	10.3
	Late adult (36-45 year)	31	29.5
	Early elderly (46-55 year)	37	34.6
	Elderly (56-65 year)	25	22.8
2.	Religion		
	Muslim	107	100
3.	Marital status		
	Married	90	84.1
	Widow and single	17	15.9
4.	Education		
	Low	32	29.9
	Middle	48	44.9
	High	27	25.2
5.	Occupation		
	Employed	50	46.7
	Un-employed	57	53.3
6.	Income in month		
	Less than regional minimum wages	30	17.6
	More than regional minimum wages	20	18.6
	No income	57	33.5
7.	Cycles of Chemotherapy		
	1 - 3	63	58.9
	4 - 6	44	41.1
9.	Living in home with		
	Children	9	8,4
	Family	87	81,3
	Alone	11	10,3
	Total	107	100

Breast cancer patients who had chemotherapy had an average age of 47.53 ± 11.06 years. This is consistent with Elmika's (2020) findings, which show that 56.8% of breast cancer patients are aged 49 to 65 [38]. The same information was acquired from the results of Susilawati and Nurhayati's research (2022), which indicated that the majority of breast cancer patients getting chemotherapy therapy were between 46

and 55 years old, as many as 35 (40.7%) with a mean value of 47.90. [39]. National Breast Cancer Foundation (2025). According to some research, the older a woman becomes, the greater her risk of acquiring breast cancer, with three out of every four cases occurring in women aged 50 and older [40]. 40-year-old women are at high risk of having breast cancer. At that age, the early stages of breast cancer are detected before menopause, and the highest age for breast cancer cases is more than 50 years. This is connected to decreased organ function and immunity [41].

The study's findings revealed that the majority of respondents (84.1%) are married, 81.3% live with family, and 8.4% live with children. Family is one of the supporting variables for treatment effectiveness since they can provide therapeutic support, remind people to take their medications, and remind them of their therapy schedule. Good and strong family support in cancer patients can reduce the risk or chance of poor quality of life. Family support for patients can be seen in the information support that patients require, practical and concrete help support, assessment support that provides feedback, validator sources, guidance, and emotional support [42]. Rosa et al. (2022) found that effective family support can influence patients' therapy and nursing care, hence improving their quality of life. According to the report, 55.9% of respondents offered good support to cancer patients.[42].

The study found that the majority of respondents (44.9%) had a middle-level education. Education is closely related to disease knowledge. Patients benefit from education because it facilitates their access to information. Breast cancer patients who have a higher level of education are more likely to comply with treatment. Rizka, Iskandar, and Akramah (2023) found a link between education level and treatment compliance. Respondents with higher education levels demonstrated increased compliance with treatment. [31].

Based on occupation, the majority of respondents (53.3%) were unemployed. This is consistent with Sulviana and Kurniasari's (2021) research, in which all respondents were housewives [43]. Some studies indicate that there is no relationship between occupation and cancer incidence. Nomiko's research (2020) found no association between occupation and cancer patients' quality of life [44].

The majority of respondents in this study had no income, accounting for 33.5%. Income is a reward in the form of salary or wages earned depending on qualitative factors such as the weight or lightness of a job meant to be performed by someone. Low or no income is connected with patient compliance during treatment [45]. This information is supported by the research findings of Marwin et al (2021), who found a substantial association between income and treatment. Income influences patients' physical function, role function, social, and financial constraints [46].

SEVERITY OF SYMPTOMS, ANXIETY, FAMILY SUPPORT, AND RESILIENCE

The average severity of symptoms was 12.48 ± 5.05 , anxiety was 11.13 ± 3.40 , family support was 50.39 ± 9.67 , and resilience was 64.27 ± 12.38 . The data is provided in table 2.

Tabel 2. Severity of symptoms, anxiety, family support and resilience (n=107)

Variables	Mean	SD	Min-Max	Range	Min-Max of Questionnaire
Severity of symptom	12.48	5.05	2-23	21	0-23
Anxiety	11.13	3.40	3-19	16	0-21
Family support	50.39	9.67	20-64	44	16-64
Resilience	64.27	12.38	31-91	60	25-100

Severity of symptoms

The findings revealed that the mean severity of symptoms in breast cancer patients undergoing chemotherapy is 12.48, with a minimum score of 2 and a maximum score of 23, indicating that the average severity of symptoms is moderate. Sugo, Kusumaningrum, and Fauziningtyas (2019) define moderate level as scores ranging from 7 to 13 [34]. According to patient questionnaire responses, the most common side

effects of chemotherapy include hair loss, exhaustion, insomnia, weight loss, vomiting, nausea, and recurrent headaches.

According to the findings of Langeh et al. (2023), anti-cancer treatment involving multiple agents can cause side effects such as vomiting, nausea, baldness, symptoms of peripheral nerve damage, cognitive impairment, decreased sexual function, and early menopause, as well as interfere with central nervous system function [47]. The intensity of chemotherapy side effects is determined by the chemotherapy drug used, the dose, the duration of treatment, the patient's particular reactions to treatment, and their health status during treatment. In other situations, patients' adverse effects may be permanent or transient, and will improve once therapy is ended [48]. Choulli et al. (2024) discovered an increase in asthenia, nausea, vomiting, constipation, oral irritation, decreased appetite, and altered nail colour in patients having anthracycline-type chemotherapy. Meanwhile, patients who received taxanes typically have increased allergies, oedema, neuropathy, and arthromyalgia. [49].

The intensity of the symptoms that appear during chemotherapy treatment necessitates continual monitoring in order to minimize more severe complications [50]. According to Nyrop et al. (2021), patients undergoing chemotherapy experienced 17 symptoms, including fatigue, insomnia, anxiety, depression, shortness of breath, peripheral neuropathy, joint pain and/or arthralgia, muscle pain and/or myalgia, abdominal pain, general pain, extremity oedema, constipation, diarrhea, nausea, vomiting, mucositis, and hot flashes [51]. It was also reported that cancer treatment with chemotherapy can exacerbate more significant symptoms, lowering patients' quality of life [47].

Anxiety

Anxiety in breast cancer patients is a common condition that varies by individual. This is heavily influenced by the physical and psychological state of the patients. Breast cancer patients' recurring anxiety during chemotherapy is strongly linked to previous post-chemotherapy trauma. Patients who received chemotherapy three to ten times reported higher levels of anxiety than those who received chemotherapy once [52]. According to Fadillah and Sanghati's (2023) research, chemotherapy for breast cancer frequently creates dread and anxiety over the treatment procedure itself. Patients also reported experiencing a lack of control over their bodies and living situations, which is aggravated by the formation of dependent on those who can assist them during their treatment [53].

The study found a mean anxiety score of 11.13 ± 3.40 , with a range of 3 to 19, indicating moderate to severe anxiety. The same data obtained in previous studies revealed a significant difference in the level of anxiety of patients undergoing chemotherapy after periodic assessment, with the prevalence of anxiety and the severity of its symptoms decreasing gradually over time [52]. Agustin et al. (2024) discovered that breast cancer patients undergoing chemotherapy exhibited severe anxiety on a scale of 21 to 41 [54]. According to Hafsah (2022), 53% of cancer patients undergoing chemotherapy reported moderate anxiety, while 19% reported severe anxiety [3]. Alagizy (2020) found that 73.3% of respondents had moderate to severe anxiety symptoms [55]. Apoorva et al. (2023) found that 33.6% of respondents had recurring anxiety, which was impacted by place of residence, educational status, occupation, and age [56].

Age, gender, education and knowledge, as well as the patient's adaptability, are all factors that can influence anxiety. Anxiety in new patients is induced by a lack of understanding about the disease, treatment, and adverse effects of chemotherapy. In patients having recurrent chemotherapy, this is induced by trauma from past chemotherapy-related problems [11]. Anxiety can cause a number of physical, mental, and behavioural issues. These symptoms may include heart palpitations, cold chills, shortness of breath, shaking, and indigestion [57]. It is also stated that anxiety can frequently result in feelings of excessive fear, severe worry, and an inability to relax. Typically, it shows avoidance, restlessness, and irritation [54].

Family support

Breast cancer survivors need family support while undergoing chemotherapy. This is connected to chemotherapy side effects that might have an impact on a patient's performance status, such as diminished physical endurance, nausea, vomiting, decreased appetite, sufficient energy, and functional status. Patients require coping in order to overcome these changes, and families play an important role in developing and maintaining successful coping in patient (10).

Family support for breast cancer patients might boost motivation to pursue treatment, such as chemotherapy. Family support can take the shape of affection, attention, and care for patients in both sickness and health when carrying out treatment [59]. The mean score for family support in this study was 50.39, with a minimum of 20 and a maximum of 62, indicating that the majority fall into the strong category. This is consistent with prior research, which found that family support is high (98.4%), indicating that the treatment and care process is going well [60]. Family knowledge can be improved in terms of supporting breast cancer patients through training activities related to cancer care. With understanding, families can be motivated more easily to help patients endure therapy in the goal of avoiding the spread of cancer cells, and can prevent patients or families from discontinuing therapy [61].

Breast cancer chemotherapy treatment is time-consuming and can induce a variety of adverse effects, necessitating a high level of resilience [62]. The study found that breast cancer patients taking chemotherapy had an average resilience of 64.27 ± 12.38 , which is considered moderate. Handayani et al. (2024) discovered that 39.7% of cancer patients receiving chemotherapy lacked good resilience [63]. According to Kadek et al. (2023), most breast cancer survivors believe that resilience is largely determined by self-ability, not giving up and despairing easily, positively valuing oneself for abilities and achievements, trusting in instincts, tolerance to stress and negative effects, ability to adapt and rise from illness and difficulties, and ability to seek help and support from others [[20].

Resilience can help you overcome psychological suffering and improve your ability to perform activities. Individuals with high resilience typically develop new behaviors and perspectives, as well as new talents and abilities, to help them survive in the future [64]. Low resilience can lead to non-compliance with treatment. This drop-out could lead to increased morbidity and mortality [15]. Improved resilience can result in higher quality of life, psychological well-being, and therapeutic outcomes. Targeted interventions may include resilience and stress management training, boosting resilience and well-being, alleviating stress and anxiety symptoms, and fostering positive cancer adaptation. It has been demonstrated that cancer survivors have better health outcomes by improving personal and social resources and enabling appropriate coping techniques [65].

RELATION SEVERITY OF SYMPTOM, ANXIETY, FAMILY SUPPORT AND RESILIENCE

There are negative and weak relationships between symptom severity and resilience ($r=-0.249$), anxiety and resilience ($r=-0.569$), and family support and resilience ($r=0.184$).

Tabel 3. The relationship severity of symptom, anxiety, family support and resilience

Variables	N	Pearson correlation (r)	P value
Severity of symptom	107	-0.249	0.010
Anxiety	107	-0.569	0.000
Family support	107	0.184	0.049
Resilience]	107	1	

Correlation between symptom severity and resilience.

Resilience in cancer patients receiving chemotherapy is required to overcome the effects of breast cancer management, particularly chemotherapy. Patients who lack resilience may choose not to continue chemotherapy because they are physically and mentally unprepared to deal with the side effects of the chemotherapy. This causes incomplete treatment and cancer recurrence [66].

According to Yulia's (2024) research, 68% of respondents, specifically chemotherapy patients, reported powerlessness and 72% anxiety, as well as fear of death and worsening health conditions. This circumstance causes patients to be frustrated and lose enthusiasm, as well as a decline in drive to care for themselves, and it reduces resilience [67]. Janitra and Wicaksana's (2023) research found that

chemotherapy-related symptoms such as pain, nausea, and vomiting can have an impact on resilience. Pain is the most major issue for women with breast cancer, and it is often poorly treated. Physical pain is a severe issue that reduces quality of life. Furthermore, nausea and vomiting symptoms are said to increase by 70% on the second day following chemotherapy. To survive the disease and the adverse effects of chemotherapy, patients must have good coping skills and perseverance [68].

found an association between symptoms and resilience in cancer patients undergoing chemotherapy. The symptoms in question include somatic complaints, sleeplessness, social dysfunction, sadness, and both positive and negative affect. It was also noted that breast cancer patients with high resilience report higher levels of positive affect than negative affect. As a result, in order to boost resilience, patients require assistance in increasing their positive attitude [69].

Correlation between anxiety and resilience.

Anxiety is one of the psychological side effects experienced by cancer patients during chemotherapy. The findings of this study revealed a substantial negative correlation between anxiety and resilience. Previous research has found that psychological conditions such as anxiety are strongly associated to the resilience of women with breast cancer who receive chemotherapy [70]. Previous research has found that resilience helps patients manage anxiety, quality of life, sadness, and other post-traumatic symptoms [71].

Cancer patients frequently suffer anxiety, which can damage their resilience, beginning with the diagnosis process and continuing during treatment. As a result, patients are expected to develop effective anxiety management skills in order to build resilience. A positive increase in resilience will benefit the patient's treatment process in the subsequent procedure [72]. Good resilience does not imply a great tolerance for anxiety, but rather the ability to manage worry that emerges during the chemotherapy process. Resilience can assist lower anxiety by encouraging optimism, responsibility, tolerance, adaptability, and a realistic outlook. Furthermore, a person's spirituality and perspective on life contribute to the patient's level of resilience. Patients with strong resilience will live with good quality [73].

Correlation between family support and resilience.

Family support is an effort to make family members feel cared for, which can be demonstrated by attitudes, behaviours, and acceptance of the situations that exist [74]. Family support is vital and can help breast cancer patients cope with treatment. The findings of this study also indicate a substantial beneficial association between family support and resilience. In other words, the higher the family support score, the greater the resilience score.

This is consistent with prior research, which found a substantial connection between family support and resilience [75], [76]. It is also claimed that family support has an indirect effect on patient resilience [77]. The more family support persons with cancer receive, the greater their resilience [78].

Family support can help patients develop resilience by improving their physical and mental health. The support provided can take the form of disease-related knowledge, emotional support, assistance with daily needs, and positive affirmation for the treatment process that has been successfully completed [79]. The family can also help patients deal with various problems in their lives, so that they feel loved, have a place to share all of their burdens and feelings, and receive assistance in overcoming problems that arise [80].

CONCLUSION

The resilience of breast cancer patients undergoing chemotherapy is closely associated with symptom severity, anxiety, and family support. There is a significant negative and weak correlation between symptom severity and resilience; a negative and substantial relationship between anxiety and resilience; and a significant positive but weak relationship between family support and resilience. Recommendations to oncology nurses to increase interventions, particularly those that can reduce the severity of symptoms and patient anxiety while also increasing family support.

Author Contributions

Hilman Syarif: Conceptualization, Methodology, and Supervision of Collecting Data

Novi Afrianti: Data Analysis, Writing - Original draft preparation.

Dewiyuliana: Methodology, Visualization, and Investigation.

Monaris Daralina: Conceptualization, Methodology and Collecting Data

Syarifah Rauzatul Jannah: Validation, Writing - Reviewing and Editing.

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