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## **The Relationship between Spirituality and Resilience among Patients Suffered from Breast Cancer who are Undergoing Chemotherapy at Aceh Provincial General Hospital**

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### **Abstract**

Spirituality is a source of strength and coping for cancer patients that can influence resilience in the management of chemotherapy. This study aims to determine the relationship between spirituality and resilience in breast cancer patients undergoing chemotherapy at the Aceh Provincial General Hospital. This study used a quantitative cross-sectional design. The population consisted of breast cancer patients undergoing chemotherapy. A sample of 107 respondents was selected using consecutive sampling. Data were collected using self-report questionnaires with the Daily

Spiritual Experience Scale (DSES) and Connor-Davidson Resilience Scale (CD-RISC). Data collection took place from January to February, 2024. Statistical analysis was performed using chi-square. The study showed a significant relationship between resilience and side effects of chemotherapy ( $p = .0012$ ). Support from the spiritual dimension can enhance an individual's capacity to handle challenging situations like cancer. The study concludes that greater spiritual well-being is linked to higher psychological resilience in cancer patients.

**Keywords:** Breast Cancer, Resilience, Chemotherapy, Spirituality

### **Introduction**

Breast cancer occurs when abnormal cells in the breast begin to grow and divide uncontrollably, eventually forming a growth (tumor) <sup>[1]</sup>. In 2020, the five most common types of cancer affecting women were breast cancer (25.8%), colorectal cancer (9.9%), lung cancer (8.8%), cervical cancer (6.9%), and thyroid cancer (5.1%) <sup>[2]</sup>. Asia has the highest number of breast cancer deaths at 50.5%, followed by Europe at 20.7% and America at 15.5%. Among various countries, China has the highest number of breast cancer cases at around 18.4%, followed by the United States with 11.2% and Africa with 8.8% globally <sup>[3]</sup>.

Indonesia has a total of 65,858 breast cancer cases, which is 16.6% of the 396,914 total cancer cases <sup>[4]</sup>. According to data from the Aceh Provincial Health Office (2018), there were 1,318 people with breast cancer. The prevalence of breast cancer in Banda Aceh City is estimated at 144 cases out of 127,462 female residents. Based on this data, the high incidence of breast cancer in Aceh is evident, necessitating efforts to control the rise in cases and the accompanying advanced-stage complications.

One treatment for breast cancer is chemotherapy, along with other treatments such as surgery, radiation, or hormone therapy <sup>[5]</sup>. The dosage and protocol for chemotherapy also depend on the cancer stage <sup>[6]</sup>. Chemotherapy management for breast cancer takes a considerable amount of time and causes various side effects, requiring high resilience to endure. Low resilience can lead to non-compliance with chemotherapy, dropouts, and increased morbidity and mortality <sup>[7]</sup>.

One factor that influences resilience is spirituality. Spirituality plays a crucial role in the mental and physical well-being of breast cancer patients by facilitating a positive and calm attitude, which reduces fear during cancer diagnosis and treatment <sup>[8]</sup>. Spirituality affects the quality of life of cancer patients because it can influence how they cope with the cancer experience, find meaning and peace, and interpret health during cancer treatment and survival when experiencing fatigue or pain, helping them feel better <sup>[9]</sup>.

Globally, nationally, and regionally in Aceh, there is still limited evidence on the identification of spirituality and resilience in breast cancer patients undergoing chemotherapy. Therefore, the researcher is interested in analyzing the relationship between spirituality and resilience in breast cancer patients undergoing chemotherapy at the Aceh Provincial General Hospital.

**Methods and Materials**

This study uses a cross-sectional study approach, with data collection occurring from January 12 to February 29, 2024, in one of the oncology units at the Aceh Provincial General Hospital. The study population includes all breast cancer patients undergoing chemotherapy. The sampling method used is nonprobability sampling with consecutive sampling technique. The sample size for this study, determined using Lemeshow's estimation formula, is 107 breast cancer patients undergoing chemotherapy.

Data collection is conducted using demographic data, the Daily Spiritual Experience Scale (DSES) questionnaire, and the Connor-Davidson Resilience Scale (CD-RISC). Inclusion criteria: 1) Patients aged ≥ 18 years, 2) Married, 3) Undergoing at least one cycle of chemotherapy, 4) Mentally competent, physically and spiritually healthy, 5) No verbal communication issues. Exclusion criteria: 1) Patients with significant physical and psychological deterioration preventing them from being respondents in this study, 2) Patients with severe complications such as shortness of breath, severe pain, severe metastasis, and others. Data analysis involves univariate analysis presented as frequency distributions and bivariate analysis using chi-square tests.

All research procedures adhered to applicable research ethics principles and received approval from the Ethics Committee of Dr. Zainoel Abidin Provincial General Hospital (Number: 280/ETIK-RSUDZA/2023). All respondents provided written informed consent before participating in the study.

**Results**

This study aimed to determine the relationship between resilience and spirituality. The study results are presented in the following tables and graphs.

**Distribution of Respondent Characteristics**

Table 1 shows that the 107 respondents studied, the majority are in the early elderly age category, specifically aged 46-55 years, with 37 respondents (34.6%). All respondents are Muslim (100%). Most respondents are married, with 90 respondents (84.1%). The majority have completed secondary education, with 48 respondents (44.9%). Most respondents are unemployed, with 57 respondents (53.3%). The majority of respondents have an income below the Aceh minimum salary (<Rp3,414,666), totaling 87 respondents (81.3%). The chemotherapy cycle is predominantly in the second cycle, with 25 patients (23.4%). Most patients have had cancer for less than 1 year, totaling 90 patients (84.1%), and the majority live with family, with 87 patients (81.3%).

**Table 1:** Frequency Distribution of Respondent Characteristics (n=107)

S. No	Characteristic	Frequency	Percentage
1.	Age		
	Adolescence (17-25 tahun)	3	2,8
	Early Adulthood (26-35 tahun)	11	10,3

	Late Adulthood (36-45 tahun)	31	29,0
	Early Elderly (46-55 tahun)	37	34,6
	Late Elderly (56-65 tahun)	21	19,6
	Elderly (>65 tahun)	4	3,7
	Mean±SD	47,53±11,065	
2.	Religion		
	Islam	107	100
3.	Marital Status		
	Married	90	84,1
	Widow	17	15,9
4.	Last Education		
	Primary	32	29,9
	Secondary	48	44,9
	Higher	27	25,2
5.	Occupation		
	Private Employee	14	13,1
	Farmer/Laborer	13	12,1
	Civil Servant	15	14,0
	Entrepreneur	8	7,5
	Unemployed	57	53,3
6.	Income		
	< Rp3.414.666	30	28,0
	≥ Rp3.414.666	20	18,7
	No Income	57	53,3
7.	Chemotherapy Cycle		
	I	23	21,5
	II	25	23,4
	III	15	14,0
	IV	13	12,1
	V	13	12,2
	≥VI	18	16,8
8.	Duration of Cancer		
	< 1 year	90	84,1
	≥ 1 year	17	15,9
	Mean±SD	9,28±6,4 (month)	
9.	Living With		
	With Children	9	8,4
	With Family	87	81,3
	Alone	11	10,3
	Total	107	100

Table 2 shows that the spirituality of breast cancer patients undergoing chemotherapy at Aceh Provincial General Hospital in Banda Aceh into the high category, with 72 respondents (67.3%).

**Table 2:** Frequency Distribution of Spirituality in Breast Cancer Patients Undergoing Chemotherapy (n=107)

S. No	Spirituality	Frequency	Percentage
1.	Low	1	0,9
2.	Moderate	34	31,8
3.	High	72	67,3
	Total	107	100

The resilience of breast cancer patients undergoing chemotherapy falls into the sufficient category, with 66 respondents (61.7%) (Table 3).

**Table 3:** Frequency Distribution of Resilience in Breast Cancer Patients Undergoing Chemotherapy (n=107)

S. No	Spirituality	Frequency	Percentage
1.	Low	18	16,8
2.	Moderate	66	61,7
3.	High	23	21,5
	Total	107	100

Table 4 shows that the 35 individuals with low and moderate spirituality, 33 people (94.3%) have low to sufficient resilience. In contrast, among the 72 individuals with high spirituality, 21 people (29.2%) have high resilience. The study results indicate a significant relationship between spirituality and resilience in breast cancer patients undergoing chemotherapy (p-value 0.012). The odds ratio value of 5.3 means that high spirituality increases resilience 8 times more compared to low spirituality.

**Discussion**

Spirituality is an aspect that can enhance quality of life by providing support in adaptation and resilience for patients facing cancer. Support from the spiritual dimension can strengthen an individual's ability to cope with negative situations such as cancer. The analysis results indicate a significant relationship between spirituality and resilience in breast cancer patients undergoing chemotherapy at Aceh General Hospital (p-value 0.012).

The study found that increased spiritual well-being is associated with improved psychological resilience in advanced-stage cancer patients, particularly those with gastrointestinal cancer. Spirituality is an important source of strength and coping for cancer patients to adapt to their illness<sup>[10]</sup>. Spiritual well-being has a positive effect on hope for women with cancer. Resilience can be bolstered by spiritual support. Other research also suggests that increased spiritual well-being is related to enhanced psychological resilience in cancer patients overall<sup>[11]</sup>. For cancer patients, resilience is a dynamic process involving the continual facing of challenges related to their cancer experience<sup>[12]</sup>. All respondents in this study are Muslim (100%). Spirituality and religion are often used interchangeably, but for many people, these terms have different meanings. Religion can be defined as a set of specific beliefs and practices, usually within an organized group.

**Table 4:** Relationship Between Spirituality and Resilience among Patients Suffered from Breast Cancer who are Undergoing Chemotherapy (n=107)

Spirituality	Resilience				P-value	OR	95% CI		
	Low & Sufficient		High				Total	Lower	Upper
	n	%	n	%					
Low & Moderate	33	94,3	2	5,7	35	100			
High	51	70,8	21	29,2	72	100	0,988	28,670	
Total	84	78,5	23	21,5	107	100			

Spirituality can be defined as a sense of peace, purpose, and connection with others, as well as an individual's beliefs about the meaning of life. Spirituality can be found and expressed through organized religion or other means. Patients may consider themselves spiritual, religious, or both<sup>[13]</sup>.

This study is consistent with research conducted at a hospital in Iran. The study noted that in terms of religious care, Muslim patients with chronic illnesses, despite their limitations and disabilities, remain committed to their religious practices. Religious activities such as reading the Quran, praying, listening to sermons, engaging in specific charitable acts, and worshiping are religious obligations for these patients. Thus, facilities and conditions should be provided to support these activities<sup>[14]</sup>.

For a Muslim, illness and suffering are part of life. Both physical and spiritual suffering due to illness are considered tests of faith in God and serve to atone for sins. Suffering is viewed as a part of life, and patience through difficulties is highly valued in Islam. Specifically, patience with an illness leads to redemption of sins in Islam.

The Quran tells us that those who profess faith in Allah will not be left alone after their declaration of faith and emphasizes that believers will be tested in various ways: "And We will surely test you with something of fear and hunger and a loss of wealth and lives and fruits. But give good tidings to the patient" (Q.S Al-Baqarah: 155). A fundamental aspect of palliative care is that death is not an enemy. In Islam, death is inevitable and occurs only by God's command: "Every soul will taste death. Then to Us will you be returned" (QS. Al-Ankabut: 57).

Therefore, medical teams must remember several considerations when treating Muslim patients. Healthcare providers should inform patients about their diagnosis and prognosis but should not provide specific life expectancy estimates, as life is in God's hands, not the doctors'. Patients need to reconcile with God through religious duties so that they can meet God free of sin, along with their family and friends<sup>[15]</sup>.

This study is also supported by research on advanced-stage cancer patients in Spain who are inoperable and face shortened life expectancy and spiritual concerns. Spirituality can aid in coping with despair at the end of life, providing meaning and a sense of transcendence to one's situation and existence. Resilience supported by spirituality can assist in adapting to illness and at the end of life<sup>[16]</sup>.

The analysis suggests that incorporating spirituality into interventions and training for healthcare professionals working with advanced-stage cancer patients and in palliative care could contribute to maintaining and enhancing the resilience and well-being of both patients and caregivers. Additionally, finding meaning in life, reframing narratives of loss, and being part of a community, such as a religious community, are ways in which spirituality can enhance resilience and help individuals cope with the challenges of illness.

**Conclusion**

There is a significant relationship between spirituality and resilience in breast cancer patients undergoing chemotherapy. Spiritual well-being is associated with increased psychological resilience in cancer patients. Additionally, spirituality can aid in coping with despair at the end of life, providing meaning and a sense of transcendence in one's situation and existence.

The data collected show that all respondents are Muslim, making the spirituality questionnaire less suitable for this study. The concept of spirituality refers to a sense of peace, purpose, and connection with others, as well as an individual's beliefs about the meaning of life. Future researchers are encouraged to use a concept of religiosity that is more appropriate for respondents who are predominantly Muslim.

**Recommendations**

This study suggests the importance of integrating aspects of spirituality into interventions and training for healthcare professionals who care for advanced-stage cancer patients in palliative care. The spiritual domain should not only address

the patients but also the family caregivers, and it should be managed structurally by professional caregivers.

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