

RESEARCH ARTICLE

Patient and illness factors influencing fear of recurrence in breast cancer womenLilik Supriati¹, I Ketut Sudiana², Hanik Endang Nihayati³, Ahsan⁴, Muhammad Rodli⁵, Rinik Eko Kapti⁶**Abstract**

Objective: To analyse the factors influencing the fear of recurrence in breast cancer, including age, spirituality, length of illness, stage of cancer and the cycles of chemotherapy.

Method: The cross-sectional observational study was conducted from November 2021 to February 2022 at Dr Soepraoen Army Hospital and Baptis Hospital, East Java, Indonesia, and comprised breast cancer patients who had received at least one cycle of chemotherapy. Data was collected using the modified Spiritual Transcendence Scale questionnaire as well as from the patient's medical record. Data were analysed using univariate and linear regression.

Results: There were 135 subjects with a mean age of 47.14±6.36 years (range: 27-60 years). The largest group comprised patients with stage III disease 61 (45.2%). Variables affecting the fear of recurrence was length of illness ($p=0,007$) and spirituality ($p=0,001$).

Conclusion: Patients who had better spirituality value had lower fear of recurrence.

Keywords: Spirituality, Fear, Breast neoplasms, Medical records. (JPMA 73: S-26 [Suppl. 2]; 2023)

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Introduction

Cancer is the leading cause of death worldwide, accounting for 7.6 million deaths, or about 13% of the total deaths in 2008.¹ Globally, the burden of cancer continues to increase, with an expected 19.3 million new cancer cases by 2025.² The continuing improvement of cancer treatments has led to an increasing number of cancer survivors.³ The 5-year survival rate has risen from 79% to 88% over the past 30 years.⁴ Advances in medical care and active participation in therapy have made the breast cancer survival rate relatively higher than the other types of cancer.³⁻⁵ In Indonesia, breast cancer accounts for the majority of cancer cases treated in hospitals, and is often detected in an advanced stage.⁶

Breast cancer is a chronic disease that is full of stress and has implications on many aspects of the patient's life.⁷ The death rate from cancer is a stressor that is often feared by patients in addition to the therapy being undertaken.^{8,9} Facing cancer with a variety of treatment and therapy processes, life-threatening conditions, an uncertain prognosis of cancer, and unpredictability about managing life in the future are the main causes of uncertainty that triggers the fear of recurrence in breast cancer patients.⁸⁻¹⁰

The fear of recurrence is a worry or concern relating to the possibility that cancer will come back or progress, its relation to the reality of the severity, and the threat of cancer.¹¹ This fear has been shown to be common across all

cancer types and persists throughout the survival trajectory, remaining elevated even 6 years post-diagnosis.⁴ Fear of recurrence is one of the most prevalent psychological burdens experienced by cancer patients and survivors, with previous researches reporting prevalence rates of the fear of recurrence ranging between 33% and 97%.⁹ Fear of cancer recurrence is one of the most serious stressors that persistently undermines cancer survivors' wellbeing.¹² Excessive fear of recurrence is associated with reduced quality of life, psychological maladjustment, impaired functioning, interpersonal difficulties and decreased mental health.³⁻¹³ It still remains one of the top concerns having negative impacts on patients.⁸⁻¹⁴

Many factors are associated with the fear of recurrence, including patient, treatment-related characteristics, illness factors or cancer-related and social factors.³⁻¹⁴ The characteristics of patients in determining the fear of recurrence remains inconclusive. Results of multivariate analysis in previous researches suggest such a fear to have a minor role.⁹⁻¹³

Spirituality influences the assessment of various aspects of general health, and refers to the feeling of connectedness to a transcendental entity. It gives life a meaning, and has a stronger impact in the context of illness, but is still inconsistent.¹⁵ Illness factors comprise length of illness, cancer stage and cycles of chemotherapy instituted. This factor is postulated to contribute to the formulation of illness representation which determines the patient's emotional response, but it is a very individual judgement.⁸

The current study was planned to analyse patients and illness factors affecting the fear of recurrence in breast cancer patients.

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Patients and methods

The cross-sectional observational study was conducted from November 2021 to February 2022 at Dr Soepraoen Army Hospital and Baptis Hospital, East Java, Indonesia. After approval from the ethics review board of the Faculty of Nursing, Airlangga University, the sample size was calculated using the rule of thumbs formula.¹⁶ The sample was raised using purposive sampling technique.

Those included were female breast cancer patients aged 26-60 years who had received at least one cycle of chemotherapy. Informed consent was obtained from each of the prospective subject, and those who did not want to participate were excluded.

The research process began with licensing and obtaining clearance from respective administrations regarding compliance with the strict coronavirus disease-2019 (COVID-19) protocol. Data was collected offline by providing a self-assessment questionnaire which was filled out by the subjects themselves.

The demographic section had questions regarding the level of education, occupation, marital status and ownership of health insurance. Variables on spirituality was assessed using a modified Spiritual Transcendence Scale (STS) questionnaire.¹⁷ The 9-item scale is scored on a 4-point Likert scale ranging from 1 = strongly disagree to 4 = strongly agree. Validity of the questionnaire was tested on a group of 30 breast cancer women with characteristics similar to those of the study subjects. The reliability score was 0.812, indicating consistency for measuring spirituality.

Data related to cancer stage and cycles of chemotherapy a patient had undergone was retrieved from the medical records. Data was analysed using univariate and multivariate linear regression. Analysis of variance (ANOVA) was used as appropriate. $P \leq 0.05$ was considered statistically significant.

Results

There were 135 subjects with a mean age of 47.14 ± 6.36 years (range: 27-60 years). The largest group comprised patients with stage III disease 61 (45.2%). The average fear of recurrence was 18.30 ± 4.38 , indicating a moderate level (Table 1).

Variables affecting the fear of recurrence was length of illness ($p=0,007$) and spirituality ($p=0,001$) (Table 2). Multivariate analysis also confirmed these findings (Table 3).

Table-1: Characteristics of the subjects (n=135).

Characteristic	n (%)	Mean±SD	Min- Max
Level of Education			
Elementary school	57 (42.2)		
Junior high school	31 (23.0)		
Senior high school	24 (17.8)		
College	23 (17.0)		
Occupational			
Employed	67 (49.6)		
Unemployed	68 (50.4)		
Breast cancer stages			
I	2 (1,5)		
II	46 (34,1)		
III	61 (45,2)		
IV	26 (19,3)		
Age (years)	135	47.14 ±6.36	27-60
Spirituality	135	26.86±5,80	11-35
Length of illness	135	22, 28±14,96	6-60
Amount of chemotherapy	135	4,86±2,32	2-16
Fear of recurrence	135	18.30±4.38	11-28

SD: Standard deviation.

Table-2: Bivariate analysis

Variable	Fear of recurrence	
	r	p-value
Age (years)	-0.192	0.026
Spirituality	0.429	0,001
Length of illness	-0.229	0,007
Stage of cancer	-0.080	0.357
Amount of chemotherapy	-0.004	0.961

Table-3: Bivariate analysis

Model	Unstandardised	Standardised	R square			
	Coefficients	Coefficients	Beta	t	Sig.	
	B	Std. Error				
1 (Constant)	29.624	2.588		11.448	0.000	
age (years)	-0.018	0.056	-0.027	-0.330	0.742	0.266
Length of illness	-0.049	0.022	-0.167	-2.208	0.029	
spirituality	-0.349	0.061	-0.462	-5.690	0.000	
2 (Constant)	28.951	1.585		18.270	0.000	0.265
Length of illness	-0.048	0.022	-0.165	-2.197	0.030	
Spirituality	-0.356	0.057	-0.472	-6.287	0.000	

Discussion

The study found that the length of illness and spirituality were significant influencing factors. There have been many studies suggesting that spirituality was an additional key factor that has a positive effect on those suffering from diseases, and facilitates easier coping.¹⁵⁻¹⁷ Qualitative reports have suggested that breast cancer is sometimes associated with positive spiritual experiences, and survivors rely on spiritual beliefs to cope with their stress.¹⁸

Almost all diseases lead to suffering, but not all suffering is caused by diseases. This can encourage some patients

to think about the meaning of life. Chronic diseases, such as cancer, can encourage a person to take that path. Changes in the assessment of spiritual attachment play a very important role in patients' interpretation of the cancer they are experiencing.¹⁹ Most patients the current study said they accepted the disease and tried to be grateful to it because they were able to better respect other people, and wanted to have a better life purpose. This is in tune with other studies.¹⁻²⁰

The current study showed there was significant relationship between spirituality and the fear of recurrence with sufficient strength of correlation. This is in accordance with a study done in Iran.²¹ Also, there was a significant relationship between the length of illness and the fear of recurrence. This is in line with earlier findings.¹³ Perception of illness is an important factor related to coping patterns and medication adherence. The longer the illness, the patient tends to be more able to accept and is able to adapt to the therapy being undertaken so that the fear may decrease.⁸

The illness trajectory phase in cancer from the diagnosis and treatment phase has different emotional and distress journeys and different support needs. There are three periods of cancer patients; namely, re-entry, early survivorship and long-term survivorship. The re-entry period is the transition period from a cancer patient to someone with a history of cancer, which is characterised by a period of several weeks to one year of undergoing treatment. In early survivorship, the initial survival period extends to approximately five years post-diagnosis, as the acute treatment-related, physical morbidity has subsided for most survivors by this time. Long-term survival means more than five years post-diagnosis.²¹ Most of the respondents in the current study were in the early survivorship phase. Another study also showed that during the period of illness between 1 and 5 years, breast cancer patients would experience a lot of fear of recurrence.²² The fear recurrence was high in the subjects and it was in line with studies done in China and Denmark.⁵

The current study has limitations, like a small sample that was insufficient to capture the real situation. Also, the study ignored treatments that the patients had already received, such as mastectomy and radiotherapy, which can affect the fear of recurrence. Further, the study used purposive sampling technique which was adjusted to fulfil the study objectives. As such, not all patients were covered. Finally, the study did not pay attention to other refractive factors, such as the type of chemotherapy drug received and other co-morbidities.

Conclusion

Of the two factors influencing the fear of recurrence, spirituality was the more critical one, determining positive coping to reduce the fear of recurrence. The higher the spirituality, the lower was the fear of recurrence. Therefore, it is necessary to provide nursing care that focuses on improving the spiritual aspect of the patient, such as providing motivation to always think positively, have good self-acceptance, be grateful and be more resigned to fate.

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