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RELATIONSHIP BETWEEN SELF-EFFICACY AND FEAR OF CANCER RECURRENCE IN CERVIX CANCER PATIENTS

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ABSTRACT

Fear of cancer recurrence (FCR) makes cancer patients physically and psychologically disturbed. FCR is caused by cancer patients' lack of ability or competence to exercise self-control (self-efficacy) while undergoing cancer treatment. This study aims to determine the relationship between self-efficacy and fear of recurrence in cervix cancer patients. The method used was cross-sectional, and it was carried out on 169 cervix cancer patients using the CBI (Cancer Behaviour Inventory) instrument to measure self-efficacy and the FCRI (Fear of Cancer Recurrence) instrument to measure fear of recurrence. The results showed that low self-efficacy 90 patients (52,3%) and high fear of cancer recurrence 89 patients (55%). The domain of coping with medication and side effects had the lowest Self-efficacy with 96 patients (56.8%) and the domain of functional impairment was the highest FCR domain with 84 patients (49.7%). However, that a significant relationship between self-efficacy and FCR in cervix cancer patients (p=0,012) with an OR 2,290. Self-efficacy is needed by cancer patients to overcome their fear of cancer recurrence. Therefore, help from health workers is needed to increase the self-efficacy of cancer patients.
Keywords: Cervix Cancer, Fear of Recurrence, Self Efficacy

ABSTRACT

Fear of cancer recurrence (FCR) membuat para pasien kanker mengalami gangguan secara fisik maupun psikologis. FCR disebabkan oleh kurangnya kemampuan atau kompetensi pasien kanker untuk menjalankan pengendalian diri (self-efficacy) selama menjalani pengobatan kanker. Penelitian ini bertujuan untuk menentukan hubungan antara self-efficacy dan ketakutan kambuh pada pasien kanker serviks. Metode yang digunakan adalah penelitian lintas sektoral, dan dilakukan pada 169 pasien kanker serviks menggunakan instrumen CBI (Cancer Behavior Inventory) untuk mengukur self-efficacy dan instrumen FCRI (Fear of Cancer Recurrence) untuk mengukur ketakutan akan kambuhnya penyakit. Hasil penelitian menunjukkan bahwa self-efficacy rendah sebanyak 90 pasien (52,3%) dan FCRI rendah sebanyak 89 pasien (55%). Domain koping terhadap pengobatan dan efek samping memiliki Self-efficacy yang terendah sebanyak 96 pasien (56,8%) dan domain gangguan fungsional merupakan domain FCR yang paling tinggi sebanyak 84 pasien (49,7%). Selain itu, terdapat hubungan yang signifikan antara self-efficacy dan FCR pada pasien kanker serviks (p=0,012) dengan nilai Odds Ratio sebesar 2,290. Self-efficacy diperlukan oleh pasien kanker untuk mengatasi ketakutan mereka akan kambuhnya kanker. Oleh karena itu, bantuan dari tenaga kesehatan diperlukan untuk meningkatkan self-efficacy para pasien kanker.
Keywords: kanker serviks, Fear of recurrence, Self-efficacy

INTRODUCTION

Cervix cancer is a disease that can occur in women throughout the world. Cervix cancer is caused by the human papilloma virus (HVP), which causes more than half a million women to be diagnosed every year (Brisson et al., 2020). Cervix cancer is often found in people who have had sexual relations at an early age and with multiple partners (Pan et al., 2020).

Data from the World Health Organization (WHO) in 2020 shows that the global prevalence of cervix cancer is ranked fourth globally as one of the most common types of cancer that can occur among women, with new cases ranging from 604,000 cases and a mortality rate reaching 342,000 deaths (WHO, 2020). In this case, cervix cancer cases are dominated by countries with low and middle incomes.

One of these countries is Indonesia, which is the country with the highest cases of cervix cancer and

ranks second after breast cancer in women. Data from Globocan in 2020 shows that the total number of cancer cases in Indonesia was around 396,914 cases, with a death rate of 234,511 cases. For cervix cancer, there are a total of 36,633 cases, or 9,2% of all cancer cases in Indonesia (Sung et al., 2021). The number of cervix cancer cases increases due to the absence of an organized HPV screening and vaccination program. If it is detected early, cancer patients can be cured. Early-stage cervix cancer patients who undergo treatment for around 8.6 years can be free of tumors, especially in patients with lymph node metastases or stromal invasion (Rasmussen et al., 2022). With a longer survival time for cervix cancer patients, problems will arise in cancer treatment and post-treatment, namely the fear of cancer recurrence. The fear of cancer recurrence is also called Fear of Cancer Recurrence (FCR), which will have a negative impact if you do not receive professional support in managing the fear of recurrence (Tauber et al., 2019). Many studies define FCR as fear or worry about the possibility that cancer will return and progress (Mahendran et al., 2021). Many previous studies have proven that psychosocial interventions can reduce the fear of relapse.

The fear of cervix cancer recurrence is something that is worrying for cervix cancer patients. This will affect their lives in various ways, such as physical dimensions, psychological, emotional, social, and cognitive stress, role changes, coping mechanisms, and quality of life (Giesler & Weis, 2021). There are many influencing factors, including the cancer stage, which influences the Fear of Cancer Recurrence scale; namely, the higher the cancer stage, the more afraid the patient will be of experiencing cancer recurrence after undergoing primary therapy (Peerawong et al., 2020). Cervix cancer patients have a 10–20% chance of experiencing a recurrence. If it is not treated, it will become a problem for patients and survivors for the rest of their lives, resulting in feelings of fear, helplessness, low self-esteem, sadness, quick anxiety, and even depression. Handling the fear of cancer recurrence has not been managed and fulfilled properly; it has become the number one problem expressed by cancer patients (James et al., 2022). One way to overcome this is through the individual's ability to control themselves, which is called self-efficacy.

Self-efficacy is a person's belief in himself to resolve and control his own behavior and individual conditions (Serpentini et al., 2019). The 2021 Bunkarn Gynecological Patient Study shows that cancer patients with high self-efficacy can easily determine what actions they need to take to improve their health. On the other hand, self-efficacy decreases, so the patient will feel frustrated and pessimistic about being able to get through this situation. With self-efficacy, a person's confidence can show behavior in controlling and coping to maintain the health they experience.

Cervix cancer patients who have high self-efficacy can overcome fearful behavior in recurrence. Conversely, low self-efficacy in cancer patients can cause depression (Hamama-Raz et al., 2022). So a person's ability to engage in healthy behavior is influenced by their level of fear, self-efficacy, or the individual's belief in being able to follow the treatment.

In a study (Serpentini et al., 2019), on cervix cancer patients, women had a high level of fear of cervix cancer recurrence due to low levels of self-efficacy. If the level of self-efficacy is good, then the fear of cancer recurrence is reduced.

Cervix cancer patients who are able to survive and make various efforts to deal with the cancer they suffer from make peace with cancer throughout the care continuum because of their ability to manage self-efficacy and fear of recurrence (Lemp et al., 2020). The trigger for worry and fear for cancer patients is the psychological pressure they face, which affects their physical function and motivation to attend therapy. According to (Serpentini et al., 2019), one thing that can be done to overcome this is the patient's self-efficacy factor to determine behavior in improving health.

Based on the background above, it shows that self-efficacy and fear of recurrence are interconnected in determining good attitudes toward maintaining health in cervix cancer patients and survivors. Research on the relationship between self-efficacy and fear of recurrence in cervix cancer patients in Indonesia is still limited, so researchers are interested in conducting this research.

METHODS

Participant Characteristics and Research Design

Respondents in this study were all 169 people with cervical cancer, who were determined using a executive sampling techniques. The samples in this study were all cervical cancer patients at Dharmais Cancer Hospital who underwent therapy and met the inclusion criteria, namely:

1. Patients with a diagnosis of cervical cancer undergoing therapy
2. The patient is cooperative and in a conscious state, can be oriented to place, time and person

Sampling Procedure, Sample Size, Strength, and Precision

The method used is cross-sectional. The research was conducted on 1 September – 1 October 2023, at the Dharmais Cancer Center Hospital, Jakarta. using a executive sampling techniques. The sample size of the study was 169 patients cervical cancer.

Data Collection

Collection is carried out using questionnaires. Using the CBI (Cancer Behavior Inventory) instrument to measure self-efficacy and FCRI (Fear of Cancer Recurrence) to measure fear of recurrence. The self-efficacy questionnaire consists of 6 questions with a scale range of 1-10 where the higher the score, the higher Self-efficacy, while the FCRI questionnaire consisted of 42 questions with a scale range of 0-4, the higher the score, the higher fear of cancer recurrence.

Data Analysis

Data analysis uses computerized statistics. Then a normality test was carried out, and it was found that the data was not normal, so the median value was used as the cut of point. Self-efficacy and FCRI assessment scores were converted to 100%. The cut of point for self-efficacy is 80% while for fear of cancer recurrence it is 55%. Data analysis in this research uses a quantitative approach that includes univariate analysis, namely frequency and percentage, and bivariate analysis using Chi Square analysis. The instruments used have been tested as valid and reliable: the reliability FCRI questionnaire is 0.917 and the self-efficacy questionnaire is 0.958.

RESULTS AND DISCUSSION

Table 1

Description of characteristics age, level education, occupation, marital status, cancer stage and family support patients of cervix cancer (n = 169)

No	Variable	Frequency (%)
1	Age	
	Early adult Late adult	29 (17,2 %) 140 (82,8%)
2	Level of education	
	Low (Elementary – Junior High School)	34 (20,1%)
	High (High School - University)	135 (79,9%)
3	Occupation	
	Unemployed	148 (87,6%)
	Employed	21 (12,4%)
4	Marital status	
	Unmarried	1 (0,6%)
	Married	168 (99,4%)

5	Cancer stage	
	Early stage	70 (41,7%)
	Advanced stage	98 (58,3%
6	Family support	
	Low	88 (52,1%)
	High	81 (47,9%)

The description of the characteristics of cervix cancer in this study includes age, education, marital status, cancer stage, and occupation. This research showed that the majority of respondents were older adults (82,8%). The educational level of the majority is high (79,9%). There were 87,6% more respondents who did not work. Most of the respondents were married (99,4%). Most respondents' cervix cancer stage was stage 3 (56,8%), while family support for cervix cancer patients was still low (52,1%). In this study, family support for cervix cancer patients was low (52,1%). In line with research by Wei Lin et., al 2023, on average, cervix cancer patients have low family support (45%), this is because the family is more busy with work. The role of family support in the treatment process for cancer patients is very large (Giesler & Weis, 2021). The family plays a big role in supporting the client's motivation to undergo therapy. The family also has an influence on various medical procedures, such as treatment and care. Family support, especially her husband has an important role in improving the quality of life and motivation to carry out medical therapy of cervix cancer patients. A family support system is needed to increase the motivation of cervix cancer patients.

Tabel 2
Self-efficacy in cervix cancer patients (n=169)

No	**Variable**	**equency (%)**
	Self-efficacy	
	Low	(52,3%)
	High	(47,7%)
1	Maintaining independent activities	
	Low	(50,9%)
	High	(49,1%)
2	Stress management	
	Low	(50,3%)
	High	(49,7%)
3	Coping with medication and side effects	
	Low	(56,8%)
	High	(43,2%)
4	Affective regulation	
	Low	(46,7%)
	High	(53,3%)

The results showed the most of higt self-efficacy domain was factor Affective regulation 90 (52,3%). Affective regulation can enhance self-efficacy because when someone is able to effectively handle stress, they are more likely to optimize their performance and capabilities. Improving stress management in cancer patient is an important aspect of their holistic care and treatment. Stress can affect both physical and mental well-being. Therefore, strategies for managing stress can help enhance the quality of life for cancer patients. Here are some ways to improve stress management

in cancer patient is education and information, emotional support, relaxation techniques, exercise and physical activity, time management, and healthy nutrition.

Tabel 3
FCRI in cervix cancer patients (n=169)

No	Variable	Frequency (%)
	FCRI	
	Low	89 (52,7)
	High	80 (47,3)
1	Trigger factor	
	Low	86 (50,9%)
	High	83 (49,1%)
2	Severity factor	
	Low	94 (55,6%)
	High	75 (44,4%)
3	Psychological factor	
	Low	110 (65,1%)
	High	59 (34,9%)
4	Coping strategy factor	
	Low	89 (52,7%)
	High	80 (47,3%)
5	Functional disturbance factor	
	Low	85 (50,3%)
	High	84 (49,7%)
6	Insight factor	
	Low	111 (65,7%)
	High	58 (34,3)
7	Certainty factor	
	Low	155 (91,7%)
	High	14 (8,3%)

The results showed the most of fear of cancer recurrence high domain was factor functional disturbance (47,3%). Functional disturbance results in physical limitations or limitations in daily activities. Such limitations can create concerns about a decrease in the quality of life and increase worries about the possibility of disease recurrence. Functional impairment in cancer patients can be caused by several factors, and this can vary depending on the type of cancer, the severity of the disease, and the response to treatment. Some common causes of functional impairment in cancer patients include is therapy' side effects, physical conditions requiring surgery, limitations in movement and physical function, Long-term effects of treatment radiation therapy or conditions, psychological and emotional changes, systemic effects of cancer, and nutritional limitations. It is essential to note that each cancer patient is an individual with unique needs. The management of functional impairment should consider the physical, psychological, and social aspects of the patient, and a holistic care plan can help minimize the impact of functional impairment and improve overall quality of life.
The most influential factor of functional disturbance in increasing FCR in cervix cancer patients are traumatic experiences during diagnosis and treatment, uncertainty regarding health, side effects of treatment, physical and sexual changes, uncertainty regarding fertility, economic factors, psychological support, and inadequate information. Disease increases anxiety and fear for sufferers

(Wahyuni & Setyowati, 2022). The treatment of cervical cancer can lead to various changes in daily life and physical as well as emotional well-being. These changes can vary depending on the type of treatment applied, the stage of cancer, and the individual's response to treatment. Here are some common changes that patients may experience during and after cervical cancer treatment. fishysical Changes Treatment Side Effects such as chemotherapy or radiation therapy, can cause side effects such as fatigue, nausea, vomiting, weight loss, and digestive disturbances. These side effects can affect energy levels and physical health. Changes in Sexual Function is Some forms of therapy, especially surgery or radiation therapy in the pelvic area, can affect sexual function. Patients may experience vaginal dryness, decreased libido, or other difficulties. Weight Changes with Cancer therapy can affect appetite and weight. Patients may experience significant weight gain or loss. Stress and Anxiety Fertility Uncertainty, Some forms of cervical cancer therapy can affect fertility. Patients may experience uncertainty about their ability to have children after treatment. Menstrual Cycle Changes use of some cancer therapies can affect the menstrual cycle or lead to amenorrhea (lack of menstruation). It's important to note that each patient's experience can be different, and strong support from the healthcare team, family, and friends can help in coping with these changes. Psychological support programs and physical rehabilitation can also assist patients in adapting and improving their quality of life during and after cervical cancer treatment.

Table 4

Relationships between self-efficacy and fear of recurrance on cervix cancer patients (n = 169)

Self-efficacy	**Fear of recurrance**		**N (%)**	**OR**	
	Low n (%)	**High n (%)**		**CI (95%)**	***p***
Low	61 (55,7%)	39 (39,0)	100 (100)	2,290 (1,224;4,285)	0,012
High	28 (40,6 %)	41 (59,4)	69 (100)		

*Correlation test *Chi Square* is significant at $p < 0.05$

The results of further analysis show p = 0,012, so it can be concluded that there is a significant relationship between self-efficacy and fear of recurrence in cervix cancer patients. The results of reserach showed OR value of 2.290, which means that the higher the self-efficacy, the higher the fear of recurrence. This shows that self-efficacy is the power that patients have to be aware of the recurrence of their disease. The form of suffering experienced by cancer patients, one of the significant experience problems is the fear of inevitable death (Novitarum, 2021). Previous research conducted by (Sevier-Guy et al., 2021)which state that such as living successfully with fears of recurrence, increasing activity, engaging with peer support and reducing depression, motivated in carrying out cancer therapy.

The results of this study are slightly different from previous studies. This may occur because the respondents in this study were patients who were undergoing therapy. At the time of therapy, the patient in a state of uncertainty about returning to health. Therefore, patients need to have good self-efficacy to return to health and help overcome the fear of relapse. Previous research conducted by Hamama-Raz et al. (2022) which state that good self-efficacy influences reducing fear of recurrence in breast cancer patients who have been undergoing treatment for 6 to 18 months. Another study by Brisson et al. (2020) said that good self-efficacy for cervix cancer has a low level of fear of recurrence. Qiu et al. (2021), explained the success in reducing fear of recurrence in cervix cancer patients undergoing chemotherapy is influenced by good psychological factors, namely self-efficacy. One of the key factors in achieving successful self-management is high self-efficacy

(Sandehang et al., 2023). Health care systems abroad can offer better access to psychological services and emotional support, increasing self-efficacy and thereby reducing the level of fear of recurrence (Ma'rifah & Afiyanti, 2023). Thus, the results of this study strengthen previous research studies on cancer patients. Self-efficacy makes patients more aware of their disease. Self-efficacy refers to an individual's belief in their ability to overcome challenges and control situations. self-efficacy are strong self-confidence in self-care, perceived ability to engage in self-care activities, and effort and ability to control risk factors (Wahyuni & Setyowati, 2022). Patients with high self-efficacy may feel better able to manage their health conditions, including overcoming concerns related to cervix cancer. Patients with a good level of self-efficacy are able to adapt to the stress and pressure that arise from a cancer diagnosis. So they are able to develop more effective coping strategies and have a positive view of their future. Not only that, good self-efficacy will seek social support and interact with health workers to improve understanding regarding disease, treatment, and prognosis. This helps health services plan and follow treatment according to the program. Self-efficacy is formed through evaluating a person's behavior and skills in dealing with certain situations, such as tending to take preventive steps and focusing on a healthy lifestyle, which can help manage the risk of cancer recurrence or related concerns.

LIMITATION OF THE STUDY

This study only analyzes the relationship between self-efficacy and fear of cancer recurrence without controlling for other factors that affect fear of cancer recurrence.

CONCLUSIONS AND SUGGESTIONS

Self-efficacy is positively and strongly related to the fear of cancer recurrence in cervix cancer patients. These findings have important implications for nursing services. First, nursing interventions should be more focused on increasing the self-efficacy of cervix cancer patients. Nurses also need to pay attention to the uniqueness of each patient when increasing their self-efficacy. Strategies such as increasing education, counseling, and support for patients need to be improved to increase patient self-efficacy. Fear of recurrence is also needed in patients undergoing treatment, to make a person more aware of seeking treatment. Self-efficacy becomes a protective factor that can help the patient to overcome his fear of recurrence. Nurses need to involve the patient's family, such as partners and family members, to provide family support. Apart from that, nurses can also facilitate peer support for patients in their community.

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