The Effect of Husband's Support on Fear of Cancer Recurrence in Gynecological and Breast Cancer Survivors

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Article Info

ABSTRACT

Kanker adalah penyebab utama kematian, dan para penyintas menghadapi berbagai macam terapi dan tantangan psikologis. Kebutuhan utama yang dilaporkan oleh para penyintas kanker, khususnya penyintas kanker ginekologi dan payudara, di akhir perawatan mereka adalah rasa takut akan kekambuhan, yang dapat dipengaruhi oleh banyak faktor, termasuk dukungan suami. Tujuan dari penelitian ini adalah untuk menganalisis pengaruh dukungan suami terhadap rasa takut akan kekambuhan pada penyintas kanker ginekologi dan payudara. Penelitian ini dilakukan di Rumah Sakit Ulin, Banjarmasin, dengan 211 responden yang menjalani evaluasi rawat jalan dan telah menjalani setidaknya satu perawatan. Instrumen penelitian menggunakan kuesioner Fear of Cancer Recurrence Inventory (FCRI). Desain penelitian ini adalah cross sectional. Temuan utama dari penelitian ini menunjukkan tidak ada hubungan yang signifikan secara statistik antara dukungan suami terhadap rasa takut akan kekambuhan pada penyintas kanker ginekologi dan payudara (nilai-P 0,06). Namun, terdapat korelasi spesifik dalam satu subtipe dukungan suami (dukungan instrumental, khususnya pada domain faktor pemicu dengan nilai p 0,03 dan koefisien korelasi r=−0,15) dengan satu domain ketakutan. Kesimpulan penelitian ini menunjukkan bahwa secara keseluruhan tidak terdapat hubungan antara dukungan suami suami terhadap rasa takut akan kekambuhan, tetapi terdapat hubungan yang signifikan antara dukungan instrumental yang merupakan dukungan penting. Hal ini dapat memberikan rekomendasi untuk penelitian lebih lanjut dengan menggunakan desain longitudinal untuk mendapatkan hasil yang lebih akurat.

Cancer is a leading cause of death, and survivors face a wide range of therapies and psychological challenges. A key need reported by cancer survivors, particularly gynecological and breast cancer survivors, at the end of their treatment is fear of recurrence, which many factors, including husband support, can influence. The purpose of this study was to analyze the effect of husband support on fear of recurrence in gynecological and breast cancer survivors. This study was conducted at Ulin Hospital, Banjarmasin, with 211 respondents who underwent outpatient evaluation and had undergone at least one treatment. The research instrument used the Fear of Cancer Recurrence Inventory (FCRI) questionnaire. This study design was cross-sectional. The main findings of this study showed no statistically significant association between husband support and fear of recurrence in gynecological and breast cancer survivors (P-value 0.06). Based on the statistical results, the global score is not significant, but the specific domains show significance there was a specific correlation in one subtype of husband's support (instrumental support, specifically in the contributing factor domain, with a p-value of 0.03 and a correlation coefficient of r=−0.15) with one domain of fear. The conclusion of this study indicates that overall, there is no relationship between husband's support and the contributing factor, but there is a significant relationship between instrumental and important support. This can provide recommendations for further research, including using a longitudinal design to obtain more accurate results.

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Introduction

According to GLOBOCAN data in 2020, there were 19.3 million new cancer cases worldwide, with 10.0 million deaths. Indonesia's cancer rate was 136.2 per 100,000 population, ranking eighth in Southeast Asia and 23rd in Asia. Breast cancer had the highest rate of 42.1 per 100,000 population, with an average mortality rate of 17 per 100,000, followed by cervical cancer at 23.4 per 100,000 population, with an average mortality rate of 13.9 per 100,000 population (Sung et al., 2021). Although cancer is a leading cause of morbidity and mortality worldwide, the number of cancer survivors is increasing due to early detection and improved treatment. However, cancer survivors generally experience residual symptoms that begin after their cancer diagnosis, after completing treatment, and ultimately lead to a focus on their health, affecting not only their physical health but also their psychological, social, and spiritual well-being (Rahmayani et al., 2016; Rosdiana & Afiyanti, 2020).

Research has been conducted so far on the survival of cancer survivors, especially in developed countries; there is very little attention given specifically to the psychological life of cancer survivors, especially psychological problems related to the fear of cancer recurrence. The psychological problem that is the main problem of cancer survivors is the fear of cancer recurrence/Fear of Cancer Recurrence (FCR), which is defined as "fear, worry, or concern related to the possibility that cancer will return or get worse." (Rahmayani et al., 2016). The fear of cancer recurrence is a long-term problem and a late effect observed after treatment, where cancer survivors will experience difficulties in many ways. Many factors contribute to the fear of recurrence in a cancer survivor, including factors originating from outside the individual itself, such as the husband's support in general and specifically consisting of several domains, including trigger factors, severity factors, psychological stress factors, functional impairment factors, insight factors, self-confidence factors, and coping strategy factors.

Social support theory explains that close relatives play a crucial role in reducing psychological stress and enhancing an individual's ability to cope with health threats, including the fear of cancer recurrence (FCR). In the context of female cancer survivors, husbands, as their closest partners, significantly contribute to lowering FCR levels through emotional, informational, and instrumental support. A husband's involvement in providing a sense of security, fostering understanding of the health condition, and supporting daily activities and care increases the survivor's sense of control and confidence, while also reducing anxiety, a key trigger of FCR. Therefore, husband support plays a crucial role in reducing FCR, particularly in female cancer survivors who have limited other sources of social support.

Studies on cancer survivorship in developing countries, including Indonesia, are still limited, particularly regarding the fear of cancer recurrence. Survivorship care for cancer survivors is still in its early stages of development. Data obtained from the South Kalimantan Province Cancer Information and Support Center (CISC) Association indicates that the number of gynecological and breast cancer survivors in 2023 is 240 (CISC, 2022).

Based on the phenomena, this study aims to analyze the prevalence of fear of cancer recurrence and the factors that may contribute to it among gynecological and breast cancer survivors in South Kalimantan. Knowledge of the factors associated with fear of cancer recurrence can help us better understand the nature of this fear, which is crucial for developing further interventions. The findings of this study can also help healthcare professionals identify cancer survivors at greater risk of experiencing fear of cancer recurrence.

Methods

This study uses a quantitative research method with a descriptive cross-sectional correlation design, to describe and analyze the characteristics consisting of 5 variables (level of education, age, employment status, stage and type of cancer therapy) and husband's support to his partner (wife) who is a cancer survivor regarding the fear of recurrence of gynecological cancer and breast cancer survivors at the Oncology Surgery Outpatient Clinic and Obstetrics Clinic of Ulin Banjarmasin Regional Hospital. The sampling technique in this study was consecutive sampling, namely all gynecological cancer and breast cancer survivors registered with the Cancer Information and Support Center (CISC) Association and had completed one or more cancer modality therapies (evaluation stage) in the surgical and obstetrics outpatient clinic at Ulin Banjarmasin Regional Hospital within

the time limit of May 16 - June 17, 2023, totaling 211 people, where the research process had followed legal data collection standards through informed consent and with a certificate of passing the ethical test from the ethics committee of Muhammadiyah University of Banjarmasin letter number KEPK: 0128226371 as well as research permits from various related parties.

The instruments in this study consisted of a questionnaire to identify the characteristics of respondents (age, education level, occupation, cancer stage, and type of cancer therapy), the second questionnaire was related to the husband's support, according to House (1981) which contained information related to informational support, assessment support, instrumental support, and emotional support which was compiled and developed by the researcher has been tested for the validity of the husband's support questionnaire instrument obtained a calculated r value of 0.462 to 0.627 where the values were greater than the r table (0.444). The final questionnaire was related to the cancer survivor's fear of recurrence questionnaire (Fear of Cancer Recurrence Inventory / FCRI), adopted from (*Sukyati*, 2019), which has been translated from a foreign language into Indonesian by a sworn translator from two institutions, namely the Indonesian Language Institute of the University of Indonesia and by the researcher, re-translated by the Indonesian Translators Association, after being translated in the previous study, a readability test and correlation with the data content were measured on two Maternity Nursing lecturers at the University of Indonesia (UI) as expert judgement by the researcher, a readability test was conducted again on ten gynecological and breast cancer survivors in Banjarmasin. The questionnaire consists of 42 questions in seven factors: trigger factors, severity factors, psychological stress factors, functional impairment factors, insight factors, self-confidence factors, and coping strategy factors.

This study focuses on analyzing bivariately the husband's support for the fear of recurrence of gynecological and breast cancer survivors, in this case the wife, through the Sperman Rho correlation statistical test, while the characteristics of the survivors will be analyzed univariately as supporting data for the discussion in the results of this study, so that the discussion can be clearer and more comprehensive.

Result
The results of this study are divided into two main sections: univariate analysis, which describes the characteristics of gynecological and breast cancer survivors, their fear of recurrence, and data on husbands' support for their partners, who are cancer survivors. The second section is a bivariate analysis, which describes the relationship between the independent variable (husband's support) and the dependent variable (fear of recurrence in gynecological and breast cancer survivors).

The univariate results describe characteristics such as age, education level, occupation, current cancer stage, and the type of cancer therapy undergone. In addition to respondent characteristics, the univariate results also describe husband support. The researchers use SPSS software to test research variables.

Table 1. The Characteristics of the Respondents (N=211).

Characteristic	F	Percentage (%)
Age:		
Mean ± SD (range)	46.96* ± 9.59 (45.66- 48.26)	
Education:		
- Elementary School	53	25.1
- Junior High School	81	38.4*
- Senior High School	51	24.2
- Diploma three/bachelor-doctoral	26	12.3
Employment Status:		
- Work	92	43,6
- Housewife	119	56.4*
Cancer stage:		
- Stage I	30	14.2.
- Stage II	98	46.4*
- Stage III	75	35.5
- Stage IV	8	3.8
Types of Cancer Therapy		
- Single	132	62.6*
- combination	79	37.4

Table 1 shows that the majority of the 211 respondents had an average age of 46 years, most respondents had a junior high school education (38.4%), worked as housewives (56.4%), had undergone single treatment (62.6%), and were diagnosed with stage II cancer (46.4%).

In addition to the results of the univariate analysis related to respondent characteristics, the following are the univariate results of husband support for gynecological and breast cancer survivors.

Table 2. Distribution of Average Husband Support for Gynecological and Breast Cancer Survivors at Ulin Regional Hospital, Banjarmasin, in 2023 (n=211).

Variable	Mean	Median	SD	Min-Max	CI 95%
Husband's Support	51.34*	51.00	13.10	15.00 – 68.00	49.56-53.11

Table 2 shows that the average value of husband support for cancer survivors was 51.34%. The median value was 51.00. With a 95% interval estimate, it is believed that the average support level for gynecological and breast cancer survivors ranged from 49.56 to 53.11.

This study conducted a more in-depth analysis to determine the average distribution of factors included in husband support. The average distribution of husband support factors for gynecological and breast cancer survivors is shown in Table 3 below.

Table 3. Distribution of Average Husband Support Factors for Gynecological and Breast Cancer Survivors at Ulin Regional Hospital, Banjarmasin, in 2023 (n=211)

Variables	Mean	Median	SD	Min-Max	CI 95%
Emotional Function	15.31*	15.00*	3.50	5.00-20.00	14.83-15.78
Assessment Function	12.38	12.00	3.24	2.00-16.00	11.94-12.82
Instrumental Function	12.25	12.00	3.50	4.00-16.00	11.78-12.73
Informational Function	11.39	12.00	3.85	1.00 -16.00	10.87-11.92

Table 3 shows that the highest score from husband's support factor for cancer survivors is in the emotional function factor, that is, 15.31%, the mean value is 15.00 with a 95% interval estimate. It is believed that on average, gynecological and breast cancer survivors have emotional husband support of 14.83 to 15.78.

The assessment factor has a mean value is 12.00 with an estimated interval of 95%. It is believed that the average gynecological and breast cancer survivors have husband support in an assessment of 11.94-12.82. The instrumental factor has a mean value of 12.00 with an estimated interval of 95%. It is believed that the average gynecological and breast cancer survivors have husband support instrumentally of 11.78 to 12.73. Furthermore, the informational domain has a mean value of 12.00 with an interval of 95% having an informational factor score of 10.87 to 11.92.

The results of the next analysis are an explanation regarding the fear of recurrence of gynecological and breast cancer survivors, which is described based on the results of the mean, median, standard deviation, and confidence interval.

Table 4. Distribution of Average Fear of Recurrence of Gynecological Cancer and Breast Cancer Survivors in 2023 at Ulin Regional Hospital, Banjarmasin (n=211).

Variables	Mean	Median	SD	Min-Max	95% CI
Fear of Cancer Recurrence	91.93*	90.00	20.34*	38.00-147	89.09-94.76*

Table 4 shows that the fear of cancer recurrence obtained an average value of 91.93, the middle value is 90.00 with an estimated interval of 95%, it is believed that the average gynecological cancer and breast cancer survivors who received outpatient treatment at Ulin Banjarmasin Regional Hospital have a fear of cancer recurrence score of 89.09 to 94.76. This study conducted a more in-depth analysis to determine the average distribution of the fear of cancer recurrence domains. The average distribution of the fear of recurrence domains among gynecological and breast cancer survivors is shown in Table 5 below.

Table 5. Distribution of the Average Domain of Fear of Recurrence in Gynecological and Breast Cancer Survivors in 2023 at Ulin Regional Hospital, Banjarmasin (n=211)

Variables	Mean	Median	SD	Min-Max	95% CI
Trigger	17.73	18.00	5.56	1.00-32.00	16.95-18.51
Severity	13.58	12.00	7.19	2.00-33.00	12.58-14.58
Psychological Distress	4.18	4.00	3.54	0.00-16.00	3.69-4.67
Coping strategy	28.33*	29.00	4.87	10.00-36.00	27.65-29.01
Functional Impairments	17.68	18.00	4.14	4.00-24.00	17.10-18.25
Insight	2.93*	3.00	2.73	0.00-12.00	2.55-3.31
Reassurance	7.50	8.00	2.53	1.00-12.00	7.15-7.85

Table 5 shows that the highest average score for the fear of cancer recurrence domain was found in the coping strategies domain, with a score of 28.33. The statement item with the highest average score was in the coping strategies domain, namely, praying, calming down, or relaxing, with a score of 3.65.

Next, we will present the results of the bivariate analysis regarding the relationship between the support of the husband of a cancer survivor and the fear of cancer recurrence in Table 6 below.

Table 6. The relationship between husbands' support of cancer survivors and fear of recurrence of gynecological and breast cancer survivors at Ulin Regional Hospital, Banjarmasin, in 2023 (n=211).

Variable	F	p *value*	r
Husband's Support	211	0. 06	-

Table 6 shows that the p-value for the husband's support is 0.06 (>0.05). These results conclude that there is no relationship between the husband's support of cancer survivors and the fear of cancer recurrence. This study conducted a deeper analysis to determine the relationship between husbands' support for cancer survivors and the domains of fear of cancer recurrence, which can be explained in Table 7 below.

Table 7. The relationship between husbands' support of cancer survivors and the domain of fear of recurrence of gynecological and breast cancer survivors at Ulin Regional Hospital, Banjarmasin, in 2023 (n=211).

Variables	F	p *value*	r
Trigger Domain			
Husband's Support	211	0.05	
Emotional Function	211	0.10	
Assessment Function		0.09	
Instrumental Function	211	0.03*	-0.15 *
Informational Function	211	0,06	
Severity Domain			
Husband's Support	211	0.10	
Emotional Function	211	0.11	
Assessment Function		0.16	
Instrumental Function	211	0.06	
Informational Function	211	0.24	
Psychological Stress Domain			
Husband's Support	211	0.68	
Emotional Function	211	0.54	
Assessment Function		0.98	
Instrumental Function	211	0.67	
Informational Function	211	0.98	
Doman Coping Strategy			
Husband's Support	211	0.27	
Emotional Function	211	0.55	
Assessment Function		0.25	
Instrumental Function	211	0.23	
Informational Function	211	0.20	
Functional Disorder Domain			
Husband's Support	211	0.48	
Emotional Function	211	0.92	
Assessment Function		0.26	
Instrumental Function	211	0.77	
Informational Function	211	0.31	
Insight Domain			
Husband's Support	211	0.69	
Emotional Function	211	0.85	
Assessment Function		0.49	
Instrumental Function	211	1.00	

Variables	F	p *value*	r
Informational Function	211	0.27	
Domain of Belief			
Husband's Support	211	0.27	
Emotional Function	211	0.24	
Assessment Function		0.61	
Instrumental Function	211	0.38	
Informational Function	211	0.21	

Table 7 shows that all factors; only the instrumental factor has a value of 0.03 (<0.05). It can be concluded that there is a relationship between instrumental husband support and the fear of cancer recurrence, the dominant trigger, while the other factors have values >0.05 (no significant relationship).

The Spearman correlation value for the instrumental factor is -0.15, indicating a negative correlation with weak strength, meaning that cancer survivors with high husband support on the instrumental factor tend to have a lower fear of cancer recurrence, in the trigger domain. While statistically significant, this is a weak correlation.

Discussion

The fear of cancer recurrence is a common phenomenon worldwide, including in Indonesia and abroad. This fear of cancer recurrence is based on the experiences of people who have undergone or experienced cancer treatment. It is a complex issue that can be observed both in Indonesia and abroad and is a matter of concern. Factors influencing fear of recurrence in cancer survivors include anxiety and worry about the possibility of cancer recurrence after treatment or recovery.

This study showed that the average age of respondents was 46 years, most were housewives with junior high school education, diagnosed with stage II cancer, and had undergone a single treatment. Studies that are in line with the above research, namely by Abid et al. (2024), Chen et al. (2024), showed that the average age of respondents was mostly over 40 years, as housewives and diagnosed with cervical and ovarian cancer had early-stage cancer and had undergone a single treatment. Cancer survivors with more advanced cancer stages have more access to or information about the potential risks and consequences of the disease; this information can help or increase their fears, depending on how it is presented (Afiyanti et al., 2018; Colleoni et al., 2016; Hamama-Raz et al., 2022; Nadya et al., 2017; Wang et al., 2024).

Based on these results, low education among housewives is often associated with lower health literacy, resulting in less understanding of information about prognosis, signs of recurrence, preventive measures, and post-treatment care, which can increase uncertainty and FCR. Husbands' instrumental support (costs, access to transportation, treatment supervision) directly reduces practical stress and mitigates FCR. Many studies support that open communication between spouses (husband and wife) reduces disease uncertainty and FCR; housewives with low education may have more difficulty formulating narratives or asking medical questions without their partners' support (He et al., 2024; Larsen et al., 2023; Lu et al., 2023; Tao et al., 2024; Yu et al., 2022). Based on this, FCR education programs should include husbands as participants—not just patients. Materials should be tailored to literacy levels (simple language, visual aids) and emphasize signs of real recurrence versus anxiety when the patients go to the hospital, and family coping techniques. In addition, there is a need for interventions to modify mediator factors by building survivors' self-efficacy (education, coping training), because self-efficacy mediates the relationship between education and FCR, and this is very relevant for survivors, as low-educated housewives.

The results of this study show that only one domain has a relationship with instrumental husband support, namely the trigger factor domain, with a very weak correlation and a negative but statistically significant

relationship direction. This means that cancer survivors with high husband support on instrumental factors tend to have lower fear of cancer recurrence. This is in line with research from (Wijayanti et al., 2018), which found that among gynecological cancer survivors, those with higher husband support are more likely to experience lower levels of fear of recurrence. Forms of instrumental support often provided by husbands to their partners who are gynecological and breast cancer survivors include physical and logistical care assistance, such as taking or accompanying their wives to the hospital or chemotherapy/radiotherapy sessions. Reminding them of check-up schedules, taking medication, or special diets, it has an extraordinary impact on mothers, namely reducing anxiety and increasing treatment compliance, strengthening a sense of security and emotional closeness. In addition, financial assistance and household economic management by husbands, such as covering the costs of medication, transportation, and special nutrition, setting family financial priorities so that treatment continues to accompany them to insurance or social assistance institutions, greatly reduces maternal economic stressors, which are one of the main predictors of FCR. Instrumental support provided by husbands also such as taking on household or child responsibilities, support in medical decisions and communication with health workers as well as social and administrative logistical assistance has a very positive impact on cancer survivor mothers such as providing more optimal recovery time and reducing the mother's dual role, increasing maternal self-efficacy and reducing the fear of making wrong decisions that can trigger FCR and can increase the patient's sense of control over the medical situation.

Based on the description above, the condition of psychological problems is very important and needs attention, so efforts are needed to prevent it so that the fear of relapse does not occur. Soemitro's research in (Mohamed & Muhamad, 2013; Sari et al., 2019), states that an important role in preventing psychological problems that often arise in cancer survivors is obtained from the support of the closest family, namely the husband, where the husband is the closest environment of the cancer survivor who greatly influences his psychological condition, with the support provided can provide peace of mind for cancer survivors and increase motivation or enthusiasm for recovery, if this condition occurs then the fear of relapse in cancer survivors does not occur, at least it can be reduced so that it will reduce the risk of depression.

This is supported by the results of research (Warapornmongkholkul et al., 2018), which showed that most family members close to the respondents were husbands. The feelings experienced by cancer survivors include feeling unattractive and unwanted. Therefore, in this situation, the husband's support for his partner, who is a cancer survivor, is very meaningful, as the husband can provide a sense of love and respect for the cancer survivor and can provide more support so that feelings of inferiority and feelings of no longer playing a role as a wife occur.

Study Limitations
This study has several limitations that need to be acknowledged. These limitations include the generalizability of the results, as the study was conducted with a sample limited to gynecological and breast cancer survivors. The results cannot be directly applied to the entire population of cancer survivors. The potential bias in this study also exists in the respondents used, namely that husbands were not interviewed; only wives' perceptions of support were measured. Furthermore, the study is limited by the uncertainty of causality. Although the study identified a relationship between husband support and fear of cancer recurrence, it did not examine the causal relationship. Apart from that, there are also limitations in the research design used, namely, using a cross-sectional design, so that the data collected at one point in time may not capture the dynamic nature of FCR or support. So, there is potential for response bias.

Conclusion
The research objectives have been achieved; the result is that the highest average score for the fear of cancer recurrence domain was in the coping strategy domain, with a score of 28.33. The statement item with the highest average score was in the coping strategy domain, namely praying, calming down, or relaxing, with a score of 3.65. While global husband support showed no significant correlation with FCR, specific instrumental support demonstrated a significant, albeit weak, negative correlation with the trigger domain of FCR ($r=-0.15$, $p=0.03$).

Based on the findings of this study, healthcare professionals should prioritize encouraging and facilitating instrumental support from husbands, such as providing logistical assistance and accompanying them to

appointments, as this is key to directly mitigating the initial triggers of FCR among co-residents. Future research should utilize longitudinal studies to determine causality, and mixed-methods studies to explore the significance of instrumental support should also be included.

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Conflict of Interest
The author declares that the results of this study have no conflict of interest.

Credit Author Statement
This research was carried out by a team of researchers with their respective supported scientific fields. The following is an explanation of the roles or contributors of this research team. **Heryani**: conceptualization, methodology, formal Analysis, validation, software, data curation, project administration, funding acquisition. **Yati Afiyanti, M. Sayfwani, Solikin**: expert sources of research knowledge. **Yustan Azidin**: Validation. **Dini Rahmayani**: original draft writing, writing review & editing.

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