



The Relationship between Family Support and Compliance with Cancer Patients Undergoing Chemotherapy

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Abstract

Chemotherapy is one of the treatments for patients diagnosed with cancer. Patients undergoing chemotherapy must adhere to treatment in order to achieve success. Family support plays an important role in patient compliance in undergoing chemotherapy. The aim of the research was to determine the relationship between family support and cancer patient compliance in undergoing chemotherapy. This research uses a quantitative design with a cross-sectional approach. Respondents were selected using a purposive sampling method, totaling 85 respondents who met the inclusion criteria. The instrument used is a family support questionnaire which has been tested for validity and reliability. Patient medical record book to measure patient compliance. The analysis used is univariate and bivariate using the Kolomogrov-Smirnov alternative test because it does not meet the Chi-Square test requirements. Univariate analysis showed that the majority of respondents were in late adulthood (41-60) 58 (68.2%), female 62 (72.9%), primary school education 30 (35.3%), housewife occupation 39 (45.9), income <3,200 .00 62 (72.9%), married 77 (90.6%), ca mammae cancer type 42 (49.4%), stage III 72 (84.7%), good family support 67 (78.8%), obedient 68 (80.0%). The results of the Kolomogrov-Smirnov analysis p-value = 0.000<0.05. There is a significant relationship between family support and cancer patient compliance in undergoing chemotherapy.

Keywords: Family Support, Cancer, Chemotherapy, Compliance



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INTRODUCTION

Cancer is one of the diseases with a significant incidence rate in Indonesia. According to data from the Ministry of Health of the Republic of Indonesia (Kemenkes, 2019), Indonesia ranks eighth in cancer incidence in Southeast Asia and 23rd in Asia. The Basic Health Research (Riskesdas, 2018) data shows an increase in cancer cases in Indonesia, from 1.4 million per 1,000 population in 2013 to 1.79 million per 1,000 population in 2018. The incidence of cancer has also continued to rise in various hospitals, including a Regional General Hospital in Riau Province, which recorded 7,599 cases in 2018 and 2,579 cases in 2022 (Andinata, Marni, & Erianti, 2020). Cancer treatment consists of several methods, including surgery, chemotherapy, hormone therapy, immunotherapy, hyperthermia, and more targeted therapies (National Cancer Institute, 2019). One of the most commonly used methods is chemotherapy. Chemotherapy is treatment with drugs given via infusion or orally, typically administered in several cycles, usually between 6 and 8 cycles, with breaks between cycles to provide optimal benefit for the patient (Anggarwati, 2018). Chemotherapy can last between 1 and 5 days, with intervals of 21 to 28 days between cycles (Hasanah, 2023). Although effective in treating cancer, chemotherapy can cause various physiological and psychological side effects in patients, such as pain, insomnia, fatigue, nausea, loss of appetite, cognitive disturbances, hair loss, anxiety, depression, and body image disturbances (Efrida, 2022).

These side effects often influence patient non-adherence to chemotherapy treatment. Non-adherence to cancer treatment can reduce the success of therapy, worsen the patient's condition, lower survival chances, increase healthcare costs, and raise mortality rates (Indah,



2020). Factors contributing to non-adherence include boredom due to the long treatment duration, feeling healthy after several chemotherapy cycles, leading patients to believe they no longer need to continue treatment, and the long distance between the patient's residence and healthcare facilities (Anggarwati, 2018). On the other hand, several factors can enhance patient adherence, including knowledge about the disease, self-efficacy, family support, the quality of healthcare services, and factors such as economics, education, and age (Adiputra et al., 2021). Family support, in particular, plays a crucial role in influencing patient adherence to chemotherapy treatment. Research by Puspita and Etsiri (2023) shows a significant relationship between family support and chemotherapy adherence in breast cancer patients. Family support, including emotional support, esteem support, instrumental support, and informational support, has been proven to increase patients' self-confidence and help them adhere more to treatment (Ayurini & Permatasari, 2018; Rahmawati, 2021). Emotional support, such as affection, attention, and empathy, helps patients feel psychologically supported, while instrumental support, such as assistance with transportation to the hospital or arranging treatment schedules, also plays an important role in improving adherence (Hasanah, 2023). However, not all patients receive sufficient family support. A study by Rosyada (2021) found that most breast cancer patients only received moderate family support, particularly in instrumental and informational support. Families that provide insufficient direct support, such as helping with daily activities or providing information about treatment, can worsen patients' psychological conditions and reduce their adherence to treatment. Furthermore, a preliminary study conducted in November 2023 at a Regional General Hospital in Riau Province revealed that many cancer patients arrived for treatment without family accompaniment and did not receive adequate support during the treatment process, both physically and emotionally. This led to patients not always adhering to the prescribed treatment schedule, ultimately affecting the treatment outcomes. Based on this background, it is essential to further investigate the impact of family support on cancer patients' adherence to chemotherapy. This research is expected to provide deeper insights into the role of family support in improving cancer patients' quality of life and treatment success.

RESEARCH METHODS

This study uses a quantitative method with a correlational descriptive research design. The sample in this study was selected using a purposive sampling technique, with a total sample of 85 stage 3 and stage 4 cancer patients undergoing intravenous chemotherapy at a Regional General Hospital in Riau Province. Data were collected using a questionnaire that had been tested for validity and reliability. Data analysis in this study included univariate analysis using descriptive statistics and bivariate analysis using the alternative Chi-Square test, specifically the Kolmogorov-Smirnov test, with a significance level of 0.05.

RESEARCH RESULTS AND DISCUSSION

The results of the study will be presented based on the characteristics of the respondents and the variables being investigated. This study provides univariate analysis in the form of frequency distribution and percentages of the demographic variables and characteristics being studied.

Respondent Characteristics

Table 1. Frequency Distribution of Respondents Based on Respondent Characteristics

Characteristics	Frequency (n)	Percentage (%)
Age		

1. Early Adulthood (18-40 years)	27	31.8
2. Late Adulthood (41-60 years)	58	68.2
Gender		
1. Male	23	27.1
2. Female	62	72.9
Education		
1. Elementary School	30	35.3
2. Junior High School	20	23.55
3. Senior High School	22	25.95
4. University	13	15.3
Occupation		
1. Housewife	39	45.9
2. Employee	19	22.4
3. Entrepreneur	13	15.3
4. Not Working	14	16.5
Income		
1. < Minimum Wage (Rp 3,200,000)	62	72.9
2. > Minimum Wage (Rp 3,200,000)	23	27.1
Maritas Status		
1. Married	77	90.6
2. Not Married	8	9.4
Type of Cancer		
1. Breast Cancer	42	49.4
2. Nasopharyngeal Cancer	14	16.5
3. Thyroid Cancer	7	8.2
4. Leukemia	5	5.9
5. Cervical Cancer	4	4.7
6. Ovarian Cancer	5	5.9
7. Endometrial Cancer	5	5.9
8. Rectal Cancer	3	3.5
Cancer Stage		
1. Stage III	72	84.7
2. Stage IV	13	15.3
Total	85	100

The table above explains the characteristics of the 85 respondents in the study. Based on age, the majority of respondents are in the late adult age group (41-60 years), with 58 respondents (68.2%). Based on gender, the majority are female, with 62 respondents (72.9%). In terms of the respondents' highest level of education, most have completed elementary school, with 30 respondents (35.3%). Regarding occupation, the majority work as housewives (IRT), with 39 respondents (45.9%). In terms of monthly income, most respondents earn less than IDR 3,200,000, with 62 respondents (72.9%). As for marital status, the majority are married, with 77 respondents (90.6%). In terms of the type of cancer diagnosed, most respondents were diagnosed with breast cancer (*ca mammae*), with 42 respondents (49.4%). Finally, most respondents were diagnosed with cancer at stage III, with 72 respondents (84.7%).

Family Support Overview

Table 2. Frequency Distribution of Respondents Based on Family Support

Characteristics	Frequency (n)	Percentage (%)
1. Poor	5	5.9
2. Adequate	13	15.3
3. Good	67	78.8
Total	85	100

The table above shows that the majority of cancer patients undergoing chemotherapy receive good family support, with 67 respondents (78.8%).

Chemotherapy Adherence Overview

Table 3. Frequency Distribution of Respondents Based on Chemotherapy Adherence

Characteristics	Frequency (n)	Percentage (%)
1. Adherent	75	88.2
2. Non-adherent	10	11.8
Total	85	100

The table above shows that the majority of respondents are adherent to chemotherapy, with 68 respondents (80.0%).

The Relationship Between Family Support and Cancer Patients' Adherence to Chemotherapy

Table 4. The Relationship Between Family Support and Cancer Patients' Adherence to Chemotherapy

Family Support	Adherence				Total		P value
	Adherent		Non-adherent		n	%	
	n	%	n	%			
Poor	0	0.0	5	100	5	100	0.000
Adequate	10	76.9	3	23.0	13	100	
Good	65	97.0	2	2.9	67	100	

Based on the statistical test results in the table above, it was found that patients with good family support and adherence to chemotherapy comprised 65 respondents (97.0%). This analysis did not meet the requirements for the chi-square test, so the alternative Kolmogorov-Smirnov test was used, resulting in a p-value of $0.000 < 0.05$. This indicates that there is a significant relationship between family support and patients' adherence to chemotherapy.

Discussion

Family Support Overview

The study shows that almost all respondents received good family support, which is in line with the findings of Panjaitan (2024), who also noted that the majority of respondents received positive support from their families. Family support is considered very important in the care of cancer patients, especially in Indonesian culture, where the family plays a significant role in helping patients cope with both physical and emotional challenges during treatment (Effendy, 2015). This support includes direct attention, assisting with daily needs, and providing comfort during the treatment process (Gayatri, 2021). Family support can also influence the physical and psychological condition of patients, particularly when they face changes that make their condition unstable. The hope for recovery, encouragement, and attention from family can boost the patient's self-confidence, making them more prepared to undergo chemotherapy treatment (Puspita & Etsiri, 2023). However, in terms of instrumental and informational support, families often struggle to provide sufficient practical help or accurate information, such as scheduling treatment appointments or giving appropriate medical guidance (Rahmawati, 2021). Emotional support and family appraisal are the most significant types of support for cancer patients undergoing chemotherapy. Emotional support, including empathy, attention, and encouragement from family, can help patients feel



comfortable and loved, while also reducing stress during treatment (Rosyada, 2021). Furthermore, emotional support can increase patients' self-confidence and help them stay motivated and adherent to treatment, even when facing significant challenges (Puspita, 2023).

Chemotherapy Adherence Overview

A study conducted at a Regional General Hospital in Riau Province shows that the majority of cancer patients undergoing chemotherapy are adherent to their treatment, despite facing various side effects. This finding aligns with Hia (2019), who also noted that the majority of respondents adhered to chemotherapy. This adherence is influenced by the patients' self-belief that chemotherapy can treat their illness, as well as the family support that plays a crucial role in managing side effects and maintaining patient motivation. Bandiyah (2015) explains that patient adherence to chemotherapy is influenced by internal factors such as gender, age, knowledge, beliefs, and the will to recover, as well as external factors such as family support and access to healthcare facilities. The National Cancer Institute (2021) also states that patient adherence is influenced by various factors, including social or family support, the patient's understanding of the disease, access to healthcare services, physical and mental condition, and the patient's ability to cope with chemotherapy side effects. Understanding the benefits of chemotherapy and how to manage its side effects is essential to improving adherence. Access to good healthcare services and support from competent medical professionals also plays a significant role in ensuring patient adherence (Adiputra et al., 2021). Furthermore, patients' physical and mental health, including stress management or psychological therapy, can help them endure the treatment (Patel et al., 2020). Research by Patel et al. (2020) and Kandula (2021) emphasizes that high adherence to chemotherapy in cancer patients is often linked to strong social support, adequate knowledge about treatment, and good accessibility to healthcare services. Family and friend involvement, as well as a sensitive approach to the patient's psychological condition, also greatly supports adherence to cancer treatment.

The Relationship Between Family Support and Cancer Patients' Adherence to Chemotherapy

The results of this study show a significant relationship between family support and cancer patients' adherence to chemotherapy. High family support positively influences patient adherence, which can improve the success of chemotherapy treatment. Family support is considered the attitude, actions, and acceptance of family members toward the patient, which helps the patient feel more at ease and comfortable during treatment (Halimatussakdiah & Junardi, 2018). The concept of family support is divided into four types: instrumental, informational, appraisal, and emotional support, all of which contribute to patient adherence to chemotherapy (Elfeto & Muskananfolo, 2022). When patients feel supported, they are more confident and ready to undergo treatment effectively (Rachmah et al., 2021). The study also shows that patient adherence to chemotherapy is closely related to positive treatment outcomes. Adherence to treatment improves the effectiveness of chemotherapy, reduces the risk of recurrence, and increases the chances of recovery (National Cancer Institute, 2021). Patients who adhere to chemotherapy schedules tend to have better responses to treatment, while those who are non-adherent or miss doses may experience faster disease progression (Feldstein, 2017). Moreover, family support is critical in helping patients maintain adherence to chemotherapy, as it can motivate them to continue treatment despite severe side effects (Rohmawati et al., 2021). A study by Ravi et al. (2018) also shows that adherence to chemotherapy is directly related to improved quality of life and reduced complication rates. Patients who regularly follow chemotherapy treatment have better control over tumors, which



ultimately contributes to a better prognosis and overall quality of life. Overall, the findings of this study strengthen the importance of family support and patient adherence to chemotherapy in achieving better treatment outcomes, including increased survival and effective disease control

CONCLUSION

Based on the study involving 85 respondents at a Regional General Hospital in Riau Province, the following conclusions can be drawn: The majority of respondents were in the late adult age group (41-60 years) with 58 individuals, predominantly female (62 individuals), had elementary school as the highest level of education (30 individuals), worked as housewives (IRT) (39 individuals), had a monthly income of less than IDR 3,200,000 (62 individuals), and were married (77 individuals). The cancer diagnosis for most respondents was breast cancer (ca mammae) with 42 individuals, and the majority were in stage III (72 individuals). The results of the study indicate that most patients received good family support and adhered to chemotherapy. The Kolmogorov-Smirnov statistical test yielded a p-value of 0.000 (< 0.05), indicating a significant relationship between family support and patient adherence to chemotherapy.

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