

THE EFFECT OF EDUCATIONAL SUPPORT ON THE ANXIETY LEVEL OF CANCER PATIENTS UNDERGOING CHEMOTHERAPY AT SANTA ELISABETH HOSPITAL MEDAN

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ABSTRACT

Kanker adalah salah satu penyakit yang disebabkan oleh adanya pertumbuhan sel-sel abnormal yang tidak terkendali dan berpotensi untuk menyerang organ lain. Salah satu pengobatan untuk membunuh sel-sel kanker dengan pemberian kemoterapi. Efek samping kemoterapi seperti mual muntah, sulit tidur, badan terasa nyeri serta penurunan berat badan menimbulkan kecemasan sehingga jika tidak diatasi dengan baik dapat mempengaruhi proses penyembuhan. Terapi non-farmakologis yang dapat digunakan untuk mengurangi kecemasan pasien kanker dengan pemberian suport edukasi. Penelitian ini bertujuan untuk melihat pengaruh suport edukasi terhadap tingkat kecemasan pasien kanker yang menjalani kemoterapi di Rumah Sakit Santa Elisabeth Medan Tahun 2024. Desain penelitian menggunakan *pra-eksperimental* dengan metode *one-group pretest-posttest*, populasi 285 orang, teknik pengambilan sampel menggunakan *accidental sampling* dengan jumlah sampel 27 responden. Instrumen penelitian yang digunakan yaitu kuesioner untuk menilai tingkat kecemasan serta *Leaflet* dan SOP untuk pemberian suport edukasi. Hasil penelitian diperoleh nilai *mean pre-test* yaitu 19,07 dengan Standar Deviasi 6.082 dan nilai *mean post-test* yaitu 11,44 dengan Standa Deviasi 4.807. Berdasarkan hasil uji statistik *Paired Samples T-test* sebelum dan sesudah intervensi diperoleh $p\text{ value} = 0,001$ menunjukkan adanya pengaruh suport edukasi terhadap tingkat kecemasan pasien kanker yang menjalani kemoterapi di rumah Sakit Santa Elisabeth Medan Tahun 2024. Diharapkan bagi pihak Rumah Sakit semoga pemberian suport edukasi menjadi bentuk layanan khusus untuk meningkatkan caring dan komunikasi perawat kepada pasien dan keluarga yang haus akan kasih, sapaan, perhatian dan kehangatan dari perawat dan tim medis khususnya yang terlibat langsung selama dalam proses pengobatan berlangsung.

Kata Kunci : Tingkat kecemasan; Suport edukasi; Kemoterapi

ABSTRACT

Cancer is a disease caused by the uncontrolled growth of abnormal cells that have the potential to invade other organs. One of the treatments to kill cancer cells is chemotherapy. Chemotherapy side effects such as nausea and vomiting, difficulty sleeping, body pain and weight loss cause anxiety so that if not properly addressed it can affect the healing process. Non-pharmacological therapy that can be used to reduce the anxiety of cancer patients by providing educational support. This research aims to see the effect of educational support on the anxiety level of cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan in 2024. The research design used *pre-experimental* with *one-group pretest-posttest* method, population 285 people, sampling technique using *accidental sampling* with a sample size of 27 respondents. The research instruments used were questionnaires to assess anxiety levels and *Leaflet* and SOP for providing educational support. The results of the study obtained a mean pre-test value of 19.07 with a Standard Deviation of 6,082 and a mean post-test value of 11.44 with a Standa Deviation of 4,807. Based on the results of the *Paired Samples T-test* statistical test before and after the intervention obtained $p\text{ value} = 0.001$, indicating the effect of educational support on the

anxiety level of cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan in 2024. It is hoped that the hospital will provide educational support as a form of special service to improve caring and nurse communication to patients and families who are thirsty for love, greetings, attention and warmth from nurses and medical teams, especially those directly involved during the treatment process.

Keywords: Anxiety level; Educational support; Chemotherapy

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INTRODUCTION

Chemotherapy is an act to administer anti-cancer drugs that cause psychological side effects such as anxiety (Setyani et al., 2020). Anxiety is an emotional response of a person's body that is characterized by unpleasant feelings accompanied by fear, deep and persistent worry related to feelings of uncertainty (Nadialista Kurniawan, 2021). Anxiety that occurs in chemotherapy patients is caused by several things such as physical limitations, difficulty meeting basic needs and loss of work capacity as a result of side effects that arise during chemotherapy (Hafsah.,2022).

If anxiety is not addressed properly then anxiety can affect the patient's desire to undergo chemotherapy (Hafsah., 2022), This is because the patient experiences problems with sleep patterns, nausea, vomiting, and decreased quality of life. Patients may delay or refuse chemotherapy due to anxiety that is not addressed properly which in turn hinders the treatment process (Fadillah & Sanghati, 2023). Ultimately, this anxiety can interfere with treatment, medical and psychological rehabilitation and even patients can stop chemotherapy (Primal et al., 2020).

According to Global Cancer Statistics (2020), there are 19.3 million cases of cancer worldwide with nearly 10.0 million deaths, and it is estimated that there will be an increase of 28.4 million cases (47%). In a study involving 30 chemotherapy patients in Indonesia, it was found that 11.7% of cancer patients experienced very high levels of anxiety. This causes 12.7% of them to delay or refuse chemotherapy (Fadillah & Sanghati, 2023).

According to (Pricilia et al., 2019), anxiety arises when a person is diagnosed with advanced cancer and has to undergo the first cycle of chemotherapy. This is due to the fact that a person may not know much about the disease or the treatment procedure to be performed. Anxiety or stress experienced is associated with a low level of individual knowledge.

A person's memories of past traumatic events play an important role in determining whether their anxiety is high or low. This makes the patient feel more anxious than usual, which will have a negative impact on the patient (Romawi, 2017). The results of the initial data collection of anxiety experienced by chemotherapy patients are often caused by side effects such as nausea and vomiting, ringing in the ears, stage of cancer, poor knowledge about chemotherapy, hair loss and fatigue. Background, the problem of this study is whether there is an effect of educational support on the level of anxiety of cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan in 2024.

The purpose of this study is to find out how educational support has an impact on the anxiety level of cancer patients undergoing chemotherapy in 2024. Identify the anxiety level of cancer patients undergoing chemotherapy before being given educational support. Identify the anxiety level of

cancer patients undergoing chemotherapy after being given educational support. Analyzing the effect of educational support on the anxiety level of cancer patients undergoing chemotherapy in 2024

RESEARCH METHODS

In this study, a pre-experimental design was used with one group of pretest-posttest. This study examines whether educational support can reduce the anxiety of chemotherapy patients at Medan Hospital in 2024. Population is 285 people taken from RSE Medical Record data with an average of 23 people per month. The researcher used a sampling technique, namely Accidental sampling with a sample of 27 people. In this study, educational support is considered an independent variable that affects and is expected to reduce anxiety levels. The bound variable of this study is the level of anxiety.

In the independent variable, the research instrument used is a leaflet media that contains knowledge about chemotherapy starting from the definition, objectives, and side effects of chemotherapy. The modified Hamilton Anxiety Rating Scale (HARS) (Silitonga, 2014)) was used in this study. The Likert scale is used to compile a questionnaire in closed questions to measure the opinions, attitudes, and perceptions of a person or group regarding social events and symptoms. Anxiety level interval values were obtained with the following categories: No anxiety: 0, Mild anxiety: 11-22, Moderate anxiety: 23-33, Severe anxiety: 34-42.

This research was carried out in the Chemotherapy Room of Santa Elisabeth Hospital, Jln. Haji Misbah No.7, Jati Village, Medan Maimun District, Medan City, North Sumatra. The researcher chose the location of this research because it met the criteria for conducting research. This research was conducted from April 29 to May 31, 2024. 1. Primary data is information collected directly from research participants through questionnaires that researchers get directly from research participants (Nursalam, 2020). Secondary data is data collected from Santa Elisabeth Hospital Medan (Nursalam, 2020). Secondary data in this study is data obtained by researchers from the hospital (medical records), namely the total number of respondents who have undergone chemotherapy over the past year, namely 285 people.

In this study, the author used a questionnaire, namely the Hamilton Rating Scale for Anxiety (HRS-A) questionnaire which has been modified by Delima Silitonga. This questionnaire has a valid value of 0.80 and the researcher did not conduct a validity test because the questionnaire was valid and standard. The researcher did not conduct a validity and reliability test because the researcher used the questionnaire that had been used by the previous researcher (Silitonga, 2014). The results of Cronbach Alpha 0.802 show that all statements are valid and can be used. The bivariate analysis was intended to explain the influence of two research variables, namely educational support and anxiety level. The researcher used the Paired Sample T-Test to process the data. If the significant level is $p < 0.05$, then there is a relationship between educational support and the level of anxiety of chemotherapy patients. If the significance level $p > 0.05$, then there is no relationship between the variables. This research already has a certificate of ethical clearance from the STIKes Santa Elisabeth Medan health research ethics commission with letter number No. 091/KEPK-SE/PE-DT/IV/2024

RESULTS AND DISCUSSION

Table 1. Frequency distribution of demographic data respondent characteristics at Santa Elisabeth Hospital Medan in 2024 (N=27)

Category	f	%
Age		
Late adulthood	7	25,9
Early Elderly	8	29,6
End-of-Life Elderly	7	25,9
Seniors	5	18,5
Gender		
Man	11	40,7
Woman	16	59,3
Marital Status		
Married	27	100,0
Education		
Primary School	2	7,4
Junior High School	4	14,8
Senior High School	17	63,0
Diploma	1	3,7
Bachelor	3	11,1
Work		
PNS/TNI/POLRI	1	3,7
Private	14	51,9
IRT	6	22,2
Others	6	22,2
Income/Month		
<Rp.1.000.000	9	33,3
Rp.1.000.000 s/d Rp.1.500.000	8	29,6
Rp.1.500.000 s/d Rp.3.000.000	2	7,4
>Rp.3.000.000	8	29,6
Types of Cancer		
Lung Cancer	5	18,5
Breast Cancer	15	55,6
Bowel Cancer	6	22,2
Tongue Cancer	1	3,7
Stadium Cancer		
Stadium II	4	14,8
Stadium IIA	3	11,1
Stadium IIA+	2	7,4
Stadium III	9	33,3
Stadium IIIB	3	11,1
Stadium IV	6	22,2
Chemotherapy to		
Chemotherapy I	5	18,5
Chemotherapy II	6	22,2
Chemotherapy III	3	11,1
Chemotherapy IV	5	18,5
Chemotherapy V	3	11,1

Chemotherapy VI	1	3,7
Chemotherapy IX	1	3,7
Chemotherapy X	1	3,7
Chemotherapy XII	2	7,4
Total	27	100,0

Table 2. Level of anxiety before being given educational support in cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan in 2024 (n=27)

Variable	N	Mean	Median	SD	Max-Min	95% CI
Anxiety Level (Pre-interventions)	27	19.07	19.00	6.082	28-2	21.48-16.67

Table 3. Anxiety levels after providing educational support to cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan in 2024 (n=27)

Variabel	N	Mean	Median	SD	Max-Min	95% CI
Anxiety Level (Post Interventions)	27	11.44	11.00	4.807	21-2	13.35-9.54

Table 4. Effect of Educational Support on Anxiety Levels of Cancer Patients Undergoing Chemotherapy at Santa Elisabeth Hospital Medan in 2024 (n=27)

Anxiety	n	Mean	SD	Min-Max	CI 95%	P value
<i>Pre-test</i>	27	19.07	6.082	28-2	21.48-16.67	0,001
<i>Post-test</i>	27	11.44	4.807	21-2	13.35-9.54	

The table above shows that the average anxiety level in the pre-test is 19.07 with a Standard Deviation of 6.082 with an average anxiety level in the post-test is 11.44 with a Standard Deviation of 4.807. The average difference between the pretest and the post test was 7,630 with a Standard Deviation of 3,015. The results of the Paired Samples T-Test statistical test with a result of $p = 0.001$ which shows that the hypothesis is accepted because there is a significant influence of educate support on the anxiety level of cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan in 2024.

The results of the research carried out before being given educational support showed that respondents experienced anxiety levels with an average score of 19.07. This is due to the fact that respondents before chemotherapy were given a brief explanation from the doctor and nurse on duty in the chemotherapy room regarding the chemotherapy process undertaken.

According to Subekti, R. T. (2020) this nausea and vomiting reaction can last for several days or even weeks which makes respondents experience disturbances to meet their sleep needs because they often wake up at night, the body feels pain due to lack of rest and decreased appetite so that respondents often experience weight loss. The situation that occurs often makes respondents anxious as a result of the mood changes they experience such as irritability, irritability, wanting to be alone and feeling inferior because they are unable to do activities to meet their personal needs.

The researcher concluded that the anxiety experienced by respondents who were undergoing chemotherapy was the body's natural response to a situation or situation that was occurring. The anxiety experienced by the respondents in this study was not only due to the side effects of chemotherapy drugs such as nausea and vomiting, difficulty sleeping, body pain and weight loss. Other factors that also affected the level of anxiety of respondents during chemotherapy were the age of the respondents, the experience of undergoing chemotherapy, the level of education, income and the stage of cancer.

The results of the study showed that after providing educational support to 27 respondents, a decrease in the anxiety level of cancer patients was obtained with an average score of 11.44 where health education had a positive effect in increasing the knowledge and understanding of the respondents to the treatment undertaken.

Results of this researcher is supported by researcher Ayubbana et al., (2023) that educational support is a support provided to increase individual knowledge about the treatment process they are undergoing. By providing educational support, individuals experience increased knowledge and understanding related to the diseases experienced related to side effects that occurred during the treatment period. The health education provided does not only focus on providing information about the side effects of chemotherapy but also directs and guides individuals to be able to create activities that can make a person independent.

Researchers assume that providing educational support helps chemotherapy patients reduce anxiety. The educational support provided was effective in helping respondents gain a better understanding of the disease and side effects of the chemotherapy treatment. Providing educational support, in addition to increasing understanding and knowledge, also helps respondents to be more open to the feelings experienced while undergoing chemotherapy.

The results of the Paired *Samples T-Test statistical test* showed a *p value* at the anxiety level of cancer patients = 0.001 with an average value of 7,360 from *pre-intervention to post-intervention*. This shows that there is an effect of educational support on the anxiety level of cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan in 2024. Providing educational support to cancer patients undergoing chemotherapy has a positive influence in reducing anxiety experienced during the treatment period. Patients undergoing chemotherapy experience anxiety due to excessive fear about the side effects of chemotherapy that they know from others and from the explanations of doctors and nurses.

This study is supported by Azkiya et al., (2024) who state that it has been proven that educating colorectal patients who will receive chemotherapy first helps them reduce anxiety. Before receiving education, the level of concern was moderate, however, after receiving education, the figure decreased to a mild level. An initial HARS score of 21, or moderate anxiety, followed by a HARS score of 9, or mild anxiety, indicating a decrease in anxiety levels. The educational support provided was in the form of increasing knowledge related to colorectal cancer experienced, chemotherapy side effects, how to handle chemotherapy side effects using *leaflet media*. Implementation is provided to clients through a relationship of mutual trust when they experience chemotherapy-related anxiety.

Researchers concluded that providing educational assistance to cancer patients undergoing chemotherapy lowered anxiety levels during the treatment process. The provision of educational support in this study was provided using *leaflet media*. The material presented is made as interesting as possible and accompanied by pictures so that it is easy to understand and understand so as to help

respondents to remember the material presented better. Educational support was provided to increase the respondents' insight and knowledge about the chemotherapy treatment they underwent so that the respondent felt calmer with the new knowledge. The increase in knowledge gained after being given educational support helps respondents to better understand and recognize the symptoms of side effects that occur during the treatment period so that with this new knowledge, respondents are more able to take a positive attitude.

The results showed that the anxiety experienced by the respondents during chemotherapy was not always caused by the sensation of nausea and vomiting, difficulty sleeping, body aches, weight loss or feelings of pressure while thinking about the effects of chemotherapy, the age of the respondents, the stage of cancer, the respondent's experience in undergoing chemotherapy, the respondent's income and the respondent's education. Chemotherapy patients' anxiety also arises as a result of loneliness experienced during the treatment period such as often being left at home alone, undergoing chemotherapy alone without family assistance, inability to carry out activities, feelings of lack of support and lack of understanding so that respondents often close themselves to their families and the situations they experience.

CONCLUSION

The highest level of anxiety in cancer patients before being given educational support was moderate anxiety for 17 people (63.0%). The highest level of anxiety in cancer patients after being given educational support was mild anxiety for 14 people (51.9%). Educational support was influential in reducing the anxiety level of cancer patients undergoing chemotherapy at Santa Elisabeth Hospital Medan with the results of the Paired Sample T-Test statistical test with a p value = 0.001

SUGGESTIONS

The results of this study are expected to add information to future researchers to develop research related to the provision of educational support in a qualitative form specifically for guiding to reduce anxiety because this research has not been widely researched.

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