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Relationship Coping Mechanisms and Anxiety Levels in Patients Undergoing Chemotherapy at RSUP H. Adam Malik Medan 2024

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Abstract. Introduction Anxiety in chemotherapy patients who have just undergone chemotherapy has high anxiety due to ignorance and the side effects of chemotherapy that will be carried out and lack of knowledge. In this case, an Adaptive coping mechanism is needed to reduce the level of Anxiety in chemotherapy patients. The purpose of this study was to see the relationship between coping mechanisms and anxiety levels in patients undergoing chemotherapy. The research method uses a cross-sectional method design. The sample in this study uses a purposive sampling technique of 90 people. The measuring instrument uses the Ways of Coping questionnaire and the Halmilton Anxiety Rating Scale (HARS). The results showes that the coping mechanisms in respondents were more maladaptive coping mechanisms 66 people (73.3%), and severe anxiety levels 58 people (64.4%). Statistical test of the relationship between coping mechanisms and anxiety levels in patients undergoing chemotherapy using the Spearman rank test obtains a p value = 0.001, meaning that there is a relationship between coping mechanisms and anxiety levels in patients undergoing chemotherapy with a correlation coefficient value of -0.0841, a negative pattern relationship with very strong strength. Conclusion The researcher hopes that patients undergoing chemotherapy will get more sources of information related to their current illness, so that patients do not feel too anxious about their current illness.

Keywords: anxiety levels, chemotherapy, coping mechanisms.

1. INTRODUCTION

Chemotherapy is a process of administering anti-cancer drugs that are given in the form of liquids, capsules or infusions that aim to kill cancer cells, and control cancer cells that have spread to other parts of the body (Andinata et al., 2020). The side effects of chemotherapy have an impact on physiology and psychology. The physiological impacts that occur are fatigue, nausea and vomiting, decreased appetite, loss of appetite, constipation, and pain. One of the psychological impacts that often arise is anxiety (Hafsah, 2022).

Anxiety in chemotherapy patients who have just undergone chemotherapy has high anxiety due to ignorance of the side effects of chemotherapy to be carried out and lack of knowledge (Sitepu et al., 2021). Apart from side effects, there are physical effects on chemotherapy patients where the loss of working capacity occurs to them, as a result of which the patient has difficulty meeting basic needs (Hafsah, 2022).

The Global Bruden of Cancer Study (GLOBOCAN) from WHO recorded cancer cases in Indonesia in 2020 reached 396,914 cases and the number of deaths was 234,511. The results of an initial survey conducted by researchers at H. Adam Malik Hospital Medan obtained data on the overall number of cancer patients in 2022 as many as 901 people, and in 2023 as many

as 1084 people. In 2024, from January to July, there will be 883 people. This has led to an increase in cancer patients undergoing chemotherapy in 2023 by 20% (Medical Records of H. Adam Malik Hospital Medan, 2024).

Patients who are undergoing chemotherapy for the first time have high anxiety due to lack of knowledge of the side effects of the chemotherapy action to be performed. This will give a negative response where a person does not want to undergo chemotherapy treatment. Many patients who have not undergone chemotherapy have high anxiety because they have heard that it is very dangerous and will make their condition worse (Sitepu et al., 2021). Patients who have undergone chemotherapy several times experience anxiety caused by chemotherapy side effects such as damaging healthy cells of hair, skin, bones, blood, pain, and psychological pressure that cause patients to experience decreased appetite (Rosaria, 2022).

2. THEORETICAL STUDIES

According to research conducted by Bekti Romaningsih (2020) said that the coping mechanism obtained in chemotherapy patients is 40% (14 people), while maladaptive 60% (21 people) (Romaningsih et al., 2022), while Aryati Andinata's (2020) research on the relationship between coping mechanisms and anxiety levels of chemotherapy patients is the adaptive coping mechanism of 5.2% (5 people), while the malodative coping mechanism is 94% (91 people))(Andinata et al., 2020).

There are several ways that can be done to reduce anxiety, namely: Five-finger hypnosis, which is a technique to clear one's thoughts by touching the fingers of the hand while imagining fun or liked things. According to (I.Isran et al.,2023) Five-finger hypnosis can have a high relaxation effect, so it will reduce tension and stress from a person's mind can be done for 15-20 minutes consistently.

3. METHODS

The research design used by the correlation researcher uses the cross sectional approach method, which aims to determine the relationship between coping mechanisms and the level of anxiety of chemotherapy patients at H. Adam Malik Hospital Medan in 2024 which is only carried out once. The population in this study is all chemotherapy patients at H. Adam Malik Hospital Medan from January to June 2024 as many as 806 people (Medical Record of H. Adam Malik Hospital Medan, 2024). In this study, the researcher uses the Purposive sampling technique, which is sampling with certain aspects with predetermined criteria to determine the number of samples to be examined. The results obtained from the determination of the sample size above, this study obtained a sample of 90 people as respondents.

This research has been carried out at H. Adam Malik Hospital Medan which is located on Jl. Bunga lau No. 17, Kelmelnangan Tani, Kec. Medan Tuntungan, Meldan City, North Sumatra. This research has been conducted on October 28-November 28, 2024. The independent variable in this study is the Coupling Mechanism. The dependent variable in this study is the level of anxiety. The research instrument that will be used by the researchers is the ways of coping that has been modified by Lita Purnama Sari (2013) which consists of 20 questions. The coping mechanism questionnaire that has been tested by Lita Purnama Sari (2013) and declared valid by experts and is suitable to be used as an instrument in research. The type of instrument used in this study is in the form of the HARS (Halmilton Anxiety Rating Scale) questionnaire which is a standard instrument that was first used in 1959 by Max Hamilton and is currently often used in trial clinics with excellent reliability and validity. Primary data, namely: data obtained directly by the researcher on the target, namely patients undergoing chemotherapy at H. Adam Malik Hospital Medan. Secondary data, namely: data obtained to find out the number of patients undergoing chemotherapy from the medical records of H. Adam Malik Hospital Medan.

In the coping mechanism questionnaire, the author did not conduct a validity test because it was valid, adopted instrument belonging to lita purnama Sari (2013) obtained a value (r calculate) of 0.580. Meanwhile, the HARS questionnaire has been standardized internationally and tested for validity. The results of the validity test are shown by Corrected Item – Total Correlation of all questions have a positive value and are greater than the requirement of 0.05 which means that the HARS questionnaire is valid. With the reliability test, the mechanism questionnaire has been tested using Cronbach's alpha coefficient, a result of 0.916 was obtained and it was said to be reliable, and the HARS questionnaire obtained a reliability test result using Cronbach's alpha test of 0.83, which means that the HARS questionnaire is very reliable.

The univariate analysis of the study included respondents based on demographic data, namely name (initial), age, gender, education, length of chemotherapy on variables, namely anxiety level and coping mechanism. In this study, bivariate analysis is used to explain the relationship between two variables, namely the coping mechanism variable as an independent variable with the anxiety level of the dependent variable. This is done using the Spelarman Rank test which is a non-parametric statistical data analysis method, if the data is ordinal (Sugiyono, 2019).

4. RESULTS AND DISCUSSIONS

Distribution of Characteristics of Respondent Demographic Data at H. Adam Malik Hospital Medan in 2024

Table 1 Distribution of Frequency and Percentage of Respondents Based on (Age, Gender, Education, Chemotherapy Cycle) at H. Adam Malik Hospital Medan in 2024.

Characteristic	Frequency (f)	Presented (%)
Age		
17-25	12	13,3
26-35	24	26,7
36-45	29	32,2
46-55	25	27,8
Total	90	100
Gender		
Man	44	48,9
Woman	46	51,1
Total	90	100
Education		
Primary School	10	11,1
Junior High School	14	15,6
Senior High School	51	56,7
College	15	16,7
TOTAL	90	100
Chemotherapy cycle		
1	20	22,2
2	36	40,0
3	34	37,8
Total	90	100

Distribution of Respondent Frequency Based on Coping Mechanism at H. Adam Malik Hospital Medan in 2024

Table 2 Distribution of Frequency and Percentage of Coping Mechanisms in Patients Undergoing Chemotherapy at H. Adam Malik Hospital Medan in 2024

Coping mechanism	Frequency(f)	Percentage(%)
Maladaptive Coping	66	73,3
Adatif Coping	24	26,7
Total	90	100

Anxiety Level of Patients Undergoing Chemotherapy at H.Adam Malik Hospital Medan in 2024

Table 3 Distribution of frequency and percentage of Anxiety Levels of Patients Undergoing Chemotherapy at H. Adam Malik Hospital Medan in 2024

Anxiety Level	Frequency(F)	Percentage (%)				
No anxiety	5	5,6				
Mild Anxiety	18	20				
Moderate Anxiety	8	8,9				
Severe anxiety	58	64,4				
Very Severe Anxiety	1	1,1				
Total	90	100				

The Relationship Between Coping Mechanism and Anxiety Levels in Patients Undergoing Chemotherapy at H. Adam Malik Hospital Medan in 2024.

Table 4 Results of Cross-Tabulation of Coping Mechanism with Anxiety Level in Patients Undergoing Chemotherapy at H. Adam Malik Hospital Medan in 2024.

						Anxiet	y Level				
Coping	No	ot	Mi	ld	M	oder	Severe	Very	T	p-value	Coefisien
mechanism	E	xist			at	e		Severe			correlation
	F	%	f	%	f	%	f %	f %	f %		
Maladaptive	0	0.	1	1,5	7	10.6	5 86.	1 1.1	6 100		
		0					7 4		6		
Adative	5	20	1	70.	1	4.2	1 4.2	0.0	2 100.	0,001	-0,841
		.8	7	8					4 0		
Total	5	5,	1	21.	8	8.9	5 64,4	1 1.1	9 100.	_	
		6	8	0			8		0 0		

Based on a non-parametric systematic test using the *Spearman rank* test, a *p-value* = 0.001 was obtained, which means that there is a relationship between coping mechanisms and anxiety levels in patients undergoing chemotherapy at H. Adam Malik Hospital Medan in 2024. The result of the coefficient is (-0.841) which means that the relationship between the coping mechanism is very strong and the level of anxiety, and there is a negative value (-) in the value of the coefficient which means that it is not in the same direction.

Disscusions

Coping mechanism for patients undergoing chemotherapy at H. Adam Malik Hospital Medan in 2024.

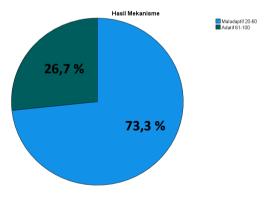


Figure 1

The researcher assumes, based on the results of observations, respondents said that they prefer to keep their own problems and do not want to talk about problems with their families because patients think that not all family problems should be known, so respondents withdraw. In accordance with the questionnaire in statement number 16, as many as (70%) answered disagreed. In addition to the factors described above, the coping mechanism is also influenced by the patient's demographic data, namely: age, gender, education, and chemotherapy cycle.

This study is in line with research (Romaningsih et al., 2022) showing that the maladaptive coping mechanism was 21 respondents (60%), and the adacative coping mechanism was 14 respondents (40%). Research says that coping mechanisms are the process of adaptation carried out by individuals to overcome problems, adjust to changes and not cause a health problem. The maladaptive coping mechanism will cause a person to be low in accepting himself, because in general, breast cancer patients will experience side effects from chemotherapy that interfere with activities so that it becomes a new problem for patients.

Anxiety Levels in Patients Undergoing Chemotherapy at H. Adam Malik Hospital Medan in 2024.

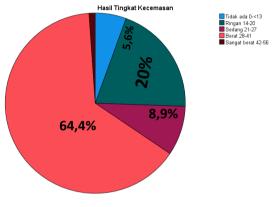


Figure 2

Research assumes that Anxiety is a part of human life that is characterized by deep, persistent feelings of fear or worry. Excessive anxiety can affect the patient's motivation to undergo chemotherapy. Each individual has a different reaction to anxiety. The results of the study are in line with the research (Minggawati & Herawati, 2024), the results of the study were obtained that the majority of respondents had severe anxiety 41 respondents (41%), and the minority had mild anxiety 11 respondents (9%). The researcher said that the factors that caused the respondents to have severe anxiety were due to age, gender, education level and past experience.

The Relationship between the Coping Mechanism and the Level of Anxiety in Patients Undergoing Chemotherapy at H. Adam Malik Hospital Medan in 2024.

The results of the study obtained a p-value = 0.001 with a correlation rate (<0.05) so that Ha was accepted, which means that there is a Relationship between the Coping Mechanism and the Level of Anxiety in patients undergoing chemotherapy at H. Adam Malik Hospital Medan in 2024 and Ho was rejected. Where to signify the two variables According to the tho table, the researcher obtained a coefficient value of -0.844, meaning that there is a very strong relationship between the coping mechanism and the level of anxiety in patients undergoing chemotherapy at H. Adam Malik Hospital Medan in 2024.

The researcher assumes that the better a person's coping mechanism, the lower the level of anxiety, but in this study it was found that the existential coping mechanism with a severe level of anxiety was found in 1 respondent (4.2%) this was because the respondent was anxious due to the lack of family support to accompany the patient for chemotherapy, which made the patient discouraged from undergoing chemotherapy and gave up on the treatment.

The results of this study are supported by research (Rahmawati & Lestari, 2022) the researcher said that there is a relationship between the coping mechanism and the level of anxiety in cancer patients at Urip Sumoharjo Hospital Lampung with *a P-Value* of 0.004 (<0.05) which means that Ho is rejected, Ha is accepted.

5. CONCLUSIONS AND SUGESTED

The coping mechanism of patients undergoing chemotherapy at H. Adam Malik Hospital Medan In 2024, the majority have a Maladaptive Coping Mechanism (73.3%). The majority of patients who underwent chemotherapy at H. Adam Malik Hospital Medan in 2024 had a severe anxiety level (64.4%). There is a significant relationship between the Coping Mechanism and the Level of Anxiety In patients undergoing chemotherapy at H. Adam Malik Hospital Medan in 2024, the majority have a Maladaptive Coping Mechanism with a severe anxiety level of (64.4%) with a P value of 0.001<0.05, and a coefficient value of -0.841 which means that the relationship is very strong but not unidirectional. The next researcher suggested to look at the relationship between the Coping Mechanism and Family Support.

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