

## DESCRIPTION OF ANXIETY LEVELS OF CANCER PATIENTS WHILE UNDERGOING CHEMOTHERAPY AT RSUD RAA SOEWONDO PATI

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### ABSTRACT

**Abstract. Background:** Cancer is one of the major health problems in the world. cancer is a cell that continues to grow uncontrollably, unlimited and abnormal. The growth of cancer cells is not coordinated with other tissues so it is very dangerous for the body. In Indonesia, cancer is the second leading cause of death after heart disease. The data is almost the same as that found by the Data and Information Center (Pusdatin) of the Indonesian Ministry of Health, which states that the prevalence of cancer reaches 100 thousand per year. Cancer patients must undergo therapy in order to recover. Chemotherapy is one of the cancer treatment methods that aims to destroy tumor cells by disrupting cell function and reproduction, both as an effort to cure, control, and palliative care. Chemotherapy can cause physiological and psychological effects. Physiological effects that can occur are fatigue, nausea, vomiting, changes in appetite, hair loss, constipation and pain. One of the psychological effects that often appears is anxiety. The purpose of this study was to describe the anxiety level of cancer patients who underwent chemotherapy at RSUD RAA Soewondo Pati. This type of research is descriptive quantitative. **Method:** The method used in this research is *cross-sectional* method. This type of research is descriptive quantitative. The population in this study were all cancer patients who underwent chemotherapy at RSUD RAA Soewondo Pati in 2024, which was an average of 219 per month. The sampling technique used purposive sampling technique with a total of 55 people. **Results:** The results of this study found mild anxiety as many as 11 people (20.0%), moderate anxiety as many as 35 people (63.6%), and severe anxiety as many as 9 people (16.4%). **Conclusion:** The conclusion of this study is that the anxiety of patients undergoing chemotherapy is moderate anxiety as many as 35 people (63.3%).

**Keywords:** cancer, chemotherapy, anxiety level.

### INTRODUCTION

Cancer is one of the major health problems in the world. According to (Listyana Hafsah, 2022) cancer is a cell that continues to grow uncontrollably, unlimited and abnormal. The growth of cancer cells is not coordinated with other tissues so it is very dangerous for the body. This context states that cancer is a malignant tumor that grows abnormally and has no known cause.

*The World Health Organization* (WHO, 2022) reported that cancer patients

worldwide in 2020 reached 19.3 million cases with a death rate of up to 10 million. (Rosaria et al., 2024). Data from the *Global Burden of Cancer Study* (Globocan) recorded the incidence of cancer in the United States as high as 3,792,000 cases, Europe 4,230,000 cases, Oceania region 252,000 cases and in Asia 8,751,000 cases (Cancer Infodatin, 2019). *The International Agency for Research on Cancer* (IARC), an international cancer research institute commissioned by the World Health Organization (WHO), estimates that the total number of cancer patients worldwide will continue to grow to 28.9 million by 2040. In Indonesia, cancer is the second leading cause of death after heart disease. The data is almost the same as that found by the Data and Information Center (Pusdatin) of the Indonesian Ministry of Health, which states that the prevalence of cancer reaches 100 thousand per year. (Simanullang & Manullang, 2020).

According to the 2018 Basic Health Research (Riskesdas) data, the prevalence of cancer in Indonesia shows an increase, namely there are 18.1 million new cases with a mortality rate of 9.6 million deaths in 2018 where 1 in 5 men and 1 in 6 women in the world experience cancer incidence, and 1 in 8 men and 1 in 11 women die from cancer (Amelia et al., 2021). According to the Pati Health Office in 2023, Pati Regency has 196 cancer patients. With 117 breast cancers, 28 cervical cancers and 51 colorectal cancers. 80% of cancer patients in Pati Regency undergo chemotherapy at RSUD RAA Soewondo Pati.

Cancer is different from other diseases, this can be seen in cancer treatments that take a long time such as chemotherapy, radiotherapy, surgery and other therapies. As a result of the disease, cancer patients often suffer twice as much as most people.

other diseases, which means that in addition to cancer itself, they also suffer from stress and anxiety (Listyana Hafsah, 2022). Cancer patients must undergo therapy in order to recover. One of the recommended treatments is chemotherapy. Chemotherapy is one method of cancer treatment that aims to destroy tumor cells by disrupting cell function and reproduction, both as an effort to cure, control, and palliative care. (Listyana Hafsah, 2022).

Chemotherapy can cause physiological and psychological effects. Physiological effects that can occur are fatigue, nausea, vomiting, changes in appetite, hair loss, constipation and pain. One of the psychological effects that often arise is anxiety (Listyana Hafsah, 2022). Anxiety is experienced subjectively and communicated interpersonally. Anxiety is different from fear which is an intellectual assessment of danger (Rofikoh & Hindriyastuti, 2015; Hindriyastuti, et.al 2023).

The results of research (Rosaria et al., 2024) conducted at Dharmis Cancer Hospital with the subject of cancer patients undergoing chemotherapy stated that of the 185 respondents showed that almost most cancer patients at Dharmis Cancer Hospital experienced severe anxiety (38.9%) and moderate anxiety (49.7%), and only a small proportion of patients experienced mild anxiety (11.4%). The results of the study (Simanullang & Manullang, 2020) found mild anxiety in 8 people (15.1%), moderate anxiety in 36 people (67.9%) and severe anxiety in 9 people (17.0%). The results of the study (Hafsah, 2022) showed that a small proportion (28%) of respondents experienced mild anxiety, more than half (53%) of respondents experienced moderate anxiety and a small proportion (19%) of respondents experienced severe anxiety. Anxiety in cancer patients can have a negative impact on their chemotherapy and psychological and medical recovery, and this anxiety can also cause patients to stop chemotherapy treatment.

Preliminary survey at RSUD RAA Soewondo Pati, data on cancer patients undergoing chemotherapy every month averaged 219 people. The number includes cancer patients with all types of cancer. Interviews with 7 cancer patients undergoing chemotherapy in the Gading Room found that 5 of them experienced anxiety, they said they were afraid and worried every time they did chemotherapy, had difficulty sleeping and often woke up during sleep, they were anxious and afraid of the side effects of chemotherapy and 2 of them felt normal. Given the importance of anxiety problems in cancer patients, researchers want to conduct research on the description of anxiety levels in cancer patients undergoing chemotherapy at RSUD RAA Soewondo Pati.

## **RESEARCH METHOD**

This type of research includes descriptive quantitative research with the *cross sectional* method, which is a type of research in which the measurement of variables is carried out only once at a time. The purpose of this research is to determine the level of anxiety in cancer patients while undergoing chemotherapy at RSUD RAA Soewondo Pati. This research was conducted at RSUD RAA Soewondo Pati chemotherapy room from February to April 2024. The population in this study were

all cancer patients who undergo chemotherapy at RSUD RAA Soewondo Pati on average 219 people per month. The sample in this study was taken using *Purposive sampling* technique, which is a sample determination technique by selecting samples among the population in accordance with the researcher's wishes so that the sample can represent the characteristics of a previously known population. The sample size was 55 people. The instrument used in the study was a questionnaire using the *Hamilton Rating Scale For Anxiety* (HARS).

## RESULTS AND DISCUSSION

The number of respondents in this study was 55 people with data on the characteristics of respondents collected were gender, education level, age, type of work, cancer stage, chemotherapy cycle, type of cancer. The results of research on the characteristics of respondents can be seen in the following table:

**Table 1. Frequency Distribution of Characteristics of Respondents Who Underwent Chemotherapy Measures at RSUD RAA Soewondo Pati**

### 1. Gender

**Table 1.1**

Frequency distribution based on gender of cancer patient respondents during chemotherapy at RSUD RAA Soewondo Pati in 2024. (n=55)

Gender	Frequency	Percentage %
Male	17	30.9
Female	38	69.1
Total	55	100

Based on table 1.1, it was found that the majority of respondents were female with 38 respondents (69.1%) while male respondents were 17 respondents (30.9%).

### 2. Last education

**Table 1.2**

Frequency distribution based on the last education of cancer patient respondents during chemotherapy at RSUD RAA Soewondo Pati in 2024 (n=55)

Education	Frequency	Percentage%
Not in school	2	3.6
ELEMENTARY SCHOOL	21	38.2
JUNIOR HIGH SCHOOL	11	20.0
HIGH SCHOOL	16	29.1
College	5	9.1
Total	55	100%

Based on table 1.2, the results of the last education of the most respondents were elementary school level with 21 respondents (38.2%), and the last education of the least respondents was not school with 2 respondents (3.6%).

### 3. Age

**Table 1.3**

Frequency distribution based on age of cancer patient respondents during chemotherapy at RSUD RAA Soewondo Pati in 2024 (n=55)

N	Minimum	Maximum	Mean	Mode	Median
55	28	78	53.93	54	54.00

Based on table 1.3, the results show that the age of most respondents (*mode*) is at the age of 54 years, *median* 54.00, average (*mean*) 53.93, then the minimum age of respondents is 28 years, and the maximum age of respondents is 78 years.

### 4. Type of work

**Table 1.4**

Frequency distribution based on the type of work of cancer patients during chemotherapy at RSUD RAA Soewondo Pati in 2024 (n=55)

Job type	Frequency	Percentage%
Not working / housewife	30	54.5
Laborer/Farmer	6	10.9
Civil Servant/Private	12	21.8
Entrepreneur	5	9.1
Retired civil servants/private sector	2	3.6
Total	55	100%

Based on table 1.4, the results of the type of work of the respondents were mostly not working / housewives with 30 respondents (54.5%), and the least type of respondent's work was retired civil servants / private sector with 2 respondents (3.6%).

### 5. Cancer stage

**Table 1.5**

Frequency distribution based on cancer stage of cancer patients during chemotherapy at RSUD RAA Soewondo Pati in 2024 (n=55)

Cancer stage	Frequency	Percentage%
Stage 4	4	7.3
Stage 3	24	43.6

Stage 2	27	49.1
Total	55	55

Based on table 1.5, it was found that the most respondents' cancer stage was stage 2 with 27 respondents (49.1%), and the least cancer stage was stage 4 with 4 respondents (7.3%).

## 6. Chemotherapy cycle

**Table 1.6**

Frequency distribution based on chemotherapy cycle of cancer patients during chemotherapy at RSUD RAA Soewondo Pati in 2024 (n=55)

Chemotherapy cycle	Frequency	Percentage %
First	11	20.0
Second	23	41.8
Third	13	23.6
Fourth	3	5.5
Fifth	3	5.5
Sixth	2	3.6
Total	55	100%

Based on table 1.6, it was found that the most respondents' chemotherapy cycle was the second chemotherapy with 23 respondents (41.8%), and the least chemotherapy cycle was the sixth chemotherapy with 2 respondents (3.6%).

## 7. Types of cancer

**Table 1.7**

Frequency distribution based on the type of cancer when patients underwent chemotherapy at RSUD RAA Soewondo Pati in 2024 (n=55)

Type of cancer	Frequency	Percentage%
Breast cancer	33	60.0
Tongue cancer	4	7.3
Prostate cancer	3	5.5
Colon cancer	14	25.5
Lung cancer	1	1.8
Total	55	100%

Based on table 1.7, it was found that the most common type of cancer for respondents was breast cancer with 33 respondents (60.0%), and the least common type of cancer was lung cancer with 1 respondent (1.8%)

**Table 2. Frequency Distribution of Anxiety Levels of Cancer Patients When Undergoing Chemotherapy Measures at RSUD RAA Soewondo Pati**

### 1. Anxiety level

**Table 2.1**

Frequency distribution of Anxiety Levels in Cancer Patients While Undergoing Chemotherapy at RSUD RAA Soewondo Pati in 2024. (n=55)

Anxiety level	Frequency	Percentage%
Normal	0	0
Mild	11	20.0
Moderate	35	63.6
Weight	9	16.4
Panic	0	0
Total	55	100%

Based on table 2.1, it is known that the anxiety level of cancer patients is mostly moderate anxiety in the amount of 35 people (63.6%), at the mild anxiety level as many as 11 people (20.0%), and at the level of severe anxiety in the amount of 9 people (16.4%).

### **Anxiety Level of Cancer Patients While Undergoing Chemotherapy at RSUD RAA Soewondo Pati**

Based on the results of research conducted at RSUD RAA Soewondo Pati in the chemotherapy room, the results of the anxiety level of cancer patients when undergoing chemotherapy were mostly moderate anxiety levels as many as 35 respondents (63.6%). This is in line with research (Rosaria et al., 2024) conducted at Dharmis Cancer Hospital with the subject of cancer patients undergoing chemotherapy stating of 185 respondents showed that most patients experienced moderate anxiety (49.7%). In accordance with research by Bintang et al (2016) on the description of anxiety levels. Stress, and depression in cancer patients undergoing chemotherapy at Dr. Hasan Sadikin Hospital Bandung that 34.28% experienced moderate anxiety. Likewise, research (Simanullang & Manullang, 2020) on the Anxiety Level of Patients Undergoing Chemotherapy Measures at Martha Friska Pulo Brayan Medan Hospital found that most patients experienced moderate anxiety as many as 36 people (67.9%). Not so with the results of research conducted by (Afida, 2018) that the majority of cancer patients undergoing chemotherapy showed a severe level of anxiety. Anxiety is a mental problem that affects many physical and biological complaints. If not handled properly, it will accelerate mortality, such as faster cancer stage growth (Listyana Hafisah, 2022). Meanwhile, according to (Agustianto, 2022) anxiety is a vague feeling of anxiety.

due to discomfort or fear that is accompanied by a response. The source of this feeling of relaxation is not specific or known to the individual. Individual responses to anxiety vary, such as mild anxiety, moderate anxiety, severe anxiety, to very severe.

Based on the results of this study, most of the respondents were female as many as 38 people (69.1%). Based on the theory (Diananda, 2016) which states that women are more susceptible to cancer, this is because in addition to being caused by unhealthy lifestyles such as smoking and eating fatty foods, women also have more types of cancer that can attack, such as breast cancer, cervical cancer and skin cancer, one of which is the use of cosmetics containing harmful substances that can trigger cancer incidence.

The Indonesian Cancer Foundation (2020) states that of the 10 most common cancers in Indonesia, cervical cancer and breast cancer are the top cancers. This fact shows that in Indonesia women are the most at risk group for cancer compared to men (YKI, 2020). The results of this study showed that most experienced breast cancer as many as 33 people (60.0%).

Someone who has a good level of education is able to think more critically and has broader knowledge. Judging from the characteristics of research respondents (Wulandari MRS, 2018), the highest average is low education with a total of 52.2%. This proves that the respondent's education level is still of a low educational background. This shows that the lower the level of education, the less individuals can recognize problems that arise, especially individual health problems themselves (Ose et al., 2014). The results of this study showed that the majority of respondents had elementary school education as many as 21 people (38.2%).

The results of this study showed that the majority of respondents had an average patient age of 54 years. According to the Ministry of Health (2015), the age range between 46-55 is included in the early elderly category. Likewise, research conducted (Rosaria et al., 2024) found that the results of cancer patients undergoing chemotherapy at Dharmis Cancer Hospital were mostly aged > 40 years (61.1%). This is in accordance with the theory (Diananda, 2016) which states that the older the age, the immune level also decreases, making it easy for cancer cells to develop in the body (Rosaria et al., 2024).

In the early stages of cancer patients tend not to realize that they have cancer because they do not show specific symptoms. The longer the cancer spreads and the higher the stage of cancer, the more severe the suffering will be and then the patient realizes and takes the initiative to seek treatment. Medical treatment is late and allows cancer patients to be in a more severe condition (Septilia et al., 2018). The results of the analysis of cancer stage characteristics, the majority of respondents were stage 2 with 27 respondents (49.1%).

Respondents experienced moderate anxiety because the respondents had undergone chemotherapy more than once, so the respondents already had experience in dealing with chemotherapy and undergoing side effects.

in facing chemotherapy and undergoing its side effects (Simanullang & Manullang, 2020). The results of the analysis of the characteristics of the chemotherapy cycle, the majority of respondents were the second chemotherapy with 23 respondents (41.8%).

Anxiety is an emotional response to the assessment of something dangerous, associated with feelings of uncertainty and helplessness. In this case, the emotional response of cancer patients to chemotherapy that they will undergo. High anxiety will also affect the hemodynamics of patients who will undergo chemotherapy so that it will also affect the administration of chemotherapy drugs. Unstable hemodynamics will interfere with the course of chemotherapy. High anxiety can also make side effects heavier because patients tend to be suggested with negative thoughts about chemotherapy that will be undertaken (Rosaria et al., 2024).

The majority of respondents in this study experienced moderate anxiety as many as 35 people (63.6%). The results of this study are in accordance with the theory (Natosba, 2020) which states that chemotherapy often causes anxiety for patients who undergo it. The anxiety arises due to side effects of chemotherapy such as hair loss, easy infection, dry and itchy skin, nausea, abdominal pain, decreased fertility and sexual appetite. (Simanullang, 2019) in his journal also explained that chemotherapy undergone by patients with cancer often causes anxiety as a psychological effect on these patients.

In research (Bintang et al., 2016) suggests that anxiety in cancer patients undergoing chemotherapy can cause patients to stop chemotherapy. The solution offered to nurses to reduce anxiety in cancer patients undergoing chemotherapy is to streamline palliative care, such as giving more attention and motivating families to provide more support to cancer patients undergoing chemotherapy so that the moderate anxiety experienced by patients does not rise to a higher level.

Mental or psychological preparation is important when cancer patients will undergo chemotherapy, because the patient's mental unpreparedness or unstable can affect their physical condition. Mental preparation of patients will be more optimal if done with family support. One of the things that can be done in an effort to reduce anxiety levels in cancer patients who will undergo chemotherapy is to give them health education about the benefits of chemotherapy measures, if cancer patients know that the benefits are greater than the impact, it can reduce the patient's anxiety level (Omri, 2017).

## **CONCLUSIONS AND SUGGESTIONS**

### **Conclusion**

After conducting research with the title of the anxiety level of cancer patients when undergoing chemotherapy measures at RSUD RAA Soewondo Pati, it can be concluded that the anxiety of patients is classified into the category of anxiety.

It can be concluded that patient anxiety is classified as moderate anxiety as many as 35 people (63.6%).

### **Suggestion**

#### **1. For Further Researchers**

As a reference and development of further research more to other factors that can be associated with the level of anxiety of cancer patients.

#### **2. For Hospitals**

Based on the research conducted, respondents mostly experienced moderate anxiety, so the data obtained can be used as basic data for screening cancer patients' anxiety. After health screening, health workers in the hospital are expected to apply several therapies or actions that can relieve respondents' anxiety.

#### **3. For Nurses**

The results of this study are expected that nurses in the chemotherapy room of RSUD RAA Soewondo Pati can streamline palliative care, such as paying more attention and motivating families to provide more support to cancer patients undergoing chemotherapy so that the moderate anxiety experienced by patients does not rise to higher levels.

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