

**Correlation Of Level Anxiety With Decreased Appetite  
In Breast Cancer Patients Who Perform Chemotherapy  
In Edelwis Room Ulin Hospital Banjarmasin**

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**ABSTRACT**

**Background:** Breast cancer is one cause of death for women. Patients with breast cancer should undergo chemotherapy and chemotherapy treatment may lead to decreased appetite due to chemotherapy substances resulting in increased stomach acid so that patients often experience nausea vomiting resulting in a lack of nutritional intake.

**Objective:** Annalyze Correlation of anxiety levels with decreased appetite in breast cancer patients who perform chemotherapy in Edelwis Room Ulin Hospital Banjarmasin.

**Method:** This type of research used an analytical survey with cross sectional approach. The population is 121 people who perform chemotherapy in Edelwis Room Ulin Hospital Banjarmasin. The sample in this study is part of the population taken using accidental sampling technique amounted to 30 people who perform chemotherapy in Edelwis Room Ulin Hospital Banjarmasin. Data were collected using questionnaire method by using Gamma correlation test with significance level 95% ( $\alpha = 0,05$ ).

**Result:** Most of the respondents were 35 years old (81.8%), high school level as many as 29 people (52.7%), the duration of chemotherapy for <1 year was 25 people (45.5%), Has a severe anxiety level with a decrease in appetite weight as much as 16 people (29.1%) and most of the respondents have decreased appetite weight as much as 114 people (65.5%). The result of analysis with Gamma coefficient test obtained the result that p value = 0,009.

**Conclusion:** There is an anxiety level relationship with decreased appetite in breast cancer patients who perform chemotherapy in Edelwis Room Ulin Hospital Banjarmasin.

**Keywords:** Anxiety, Breast Cancer, Appetite,

## INTRODUCTION

Cancer is a serious health problem in both developed and developing countries. Cancer is the leading cause of death worldwide and accounts for 7.6 million deaths, so the number of deaths caused by cancer accounts for 13% of all deaths. One type of cancer that poses a threat to women is breast cancer. Breast cancer is the second leading cause of cancer in women after cervical cancer and is the most common cancer in women (Kemenkes, 2015).

The high mortality rate caused to breast cancer due to the patients coming to health services already in an advanced stage or has been difficult to cure. Symptoms of breast cancer can be done alone and at no cost such as secondary prevention by screening detection BSE by the Health Insurance Plan of Greater New York, the result is able to reduce mortality rates between 20% -25% in the age group over 50 years (Manuaba, 2012).

Types of breast cancer treatment methods such as the removal of cancer cells, breast removal, chemotherapy and treatment by using radiation high irradiation aimed at killing cancer cells have effects such as decreased confidence of a woman, causing disharmony for households who have a husband and increase anxiety for cancer patients, while the side effects of chemotherapy and radiation irradiation directly occur 24 hours in the form of nausea and vomiting is great, so it can affect the intake of eating cancer patients (Aziz *et al*, 2010).

Majaiyanto Research (2014) mentioned that of 60 breast cancer patients, 65% of

patients lose weight due to decreased appetite, this is caused by chemotherapy substances resulting in increased stomach acid in patients with high anxiety chemotherapy.

The anxiety that breast cancer patients feel about quality of life, reproductive health, domestic life and even death. Excessive anxiety in breast cancer patients can lead to decreased endurance or immunity, increase the risk of heart problems, the decrease in the health conditions of brain and disturbances in the digestive and hull (Rosjidi, 2010).

Based on data from Ulin General Hospital Banjarmasin, according to data registers in Edelweis room in 2013 breast cancer amounted to 288 new cases (51%) from 563 old cases, in 2014 breast cancer amounted to 354 new cases (40%) of 869 old cases. The prevalence of breast cancer always increases every year by 2015 with 418 new cases (37%) from 1145 old cases and 2016 cancer cases in 528 new cases (44%) from 1211 old cases.

Preliminary results through a brief question and answer date 01-06 December 2016 against 10 patients stated that 9 people said experiencing high anxiety marked by the frequency of the patient experiencing nightmares about death until the loss of confidence that result in decreased appetite only 1 person said not experience decreased appetite.

Based on the above description, the researchers will conduct research on the relationship of anxiety levels with decreased appetite in breast cancer patients who perform chemotherapy in Edelwis Room Ulin General Hospital Banjarmasin.

## MATERIALS AND METHODS

This research use analytic survey method with cross sectional approach. The population of this study are breast cancer patients who perform chemotherapy in Edelwis Room Ulin Banjarmasin Hospital as many as 121 people with a sample of 55 people with accidental sampling technique.

## RESULT

### 1. Univariate Data Analysis Test

#### a. Characteristic of Respondent

##### 1) Age

Table 1 Respondent Age Frequency Distribution

Age (Year)	Frequency (n)	Percentage (%)
<20 years old	0	0
20-35 years old	10	18,2
>35 years old	45	81,8
Total	55	100

Table 1 shows that respondents aged > 35 years were 45 persons (81.8%) and respondents aged 20-35 years were 10 persons (18.2%).

##### 2) Education Level

Table 2 Respondent Education Level Frequency Distribution

Last Education Level	Frequency (n)	Percentage (%)
Primary school	8	14,5
Junior high school	11	20
Senior high school	29	52,7
College	7	12,7
Total	55	100

Table 2 shows that high school education respondents are 29 (52.7%) and a small proportion of

college education respondents of 7 (12.7%).

### 3) Duration of Respondent Doing Therapy

Table 3 Duration of Respondent Doing Therapy Distribution

Duration of respondent doing therapy	Frequency (n)	Percentage (%)
<1 year	25	45,5
1-3 years	22	40
>3 years	8	14,5
Total	55	100

Table 3 shows that respondents performed chemotherapy for <1 year of 25 people (45.5%).

### b. Description of Respondent Anxiety Level

Table 4 Respondent Anxiety Level Frequency Distribution

Anxiety Level	Frequency (n)	Percentage (%)
No anxiety	23	41,8
Moderate anxiety	3	5,5
Severe anxiety	29	52,7
Total	55	100

Table 4 shows that respondents experienced a severe anxiety level of 29 people (52.7%).

### c. Description of Respondent Appetite Decreased

Table 5 Respondent Appetite Decreased Frequency Distribution

Decreased Appetite	Frequency (n)	Percentage (%)
Mild	19	34,5
Moderate	11	20
Severe	25	45,5
Total	55	100

Table 5 shows that respondents experienced a significant decrease in appetite by 25 people (45.5%).

2. Univariate Data Analysis Test

a. Respondent Characteristic

1) Age

Table 6 Respondent Age Frequency Distribution

Age (Year)	Frequency (n)	Percentage (%)
<20 years	0	0
20-35 years	10	18,2
>35 years	45	81,8
Total	55	100

Table 6 shows that respondents aged > 35 years were 45 persons (81.8%) and respondents aged 20-35 years were 10 persons (18.2%).

2) Education Level

Table 7 Respondent Education Level Frequency Distribution

Last Education Level	Frequency (n)	Percentage (%)
Primary School	8	14,5
Junior high school	11	20
Senior high school	29	52,7
College	7	12,7
Total	55	100

Table 7 shows that senior high school education respondents are 29 (52.7%) and a small proportion of college education respondents of 7 (12.7%).

3) Duration of Respondent Doing Therapy

Tabel 8 Duration of Respondent Doing Therapy Distribution

Duration of Respondent Doing Therapy Distribution	Frequency (n)	Percentage (%)
<1 year	25	45,5
1-3 years	22	40
>3 years	8	14,5
Total	55	100

Table 8 shows that respondents performed chemotherapy for <1 year for 25 people (45.5%).

b. Description of Respondent Anxiety Level

Table 9 Respondent Anxiety Level Frequency Distribution

Anxiety Level	Frequency (n)	Percentage (%)
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No anxiety	23	41,8
Moderate anxiety	3	5,5
Severe anxiety	29	52,7
Total	55	100

Table 9 shows that the respondents experienced a severe anxiety level of 29 people (52.7%).

c. Description of Respondent Appetite Decreased

Table 10 Respondent Appetite Decreased Frequency Distribution

Decreased Appetite	Frequency (n)	Percentage (%)
Mild	19	34,5
Moderate	11	20
Severe	25	45,5
Total	55	100

Table 10 shows that respondents experienced a significant decrease in appetite by 25 people (45.5%).

3. Bivariate Analysis Test

Table 11 Relationship of Anxiety Level with Decreased Appetite of Respondent

Tingkat Kecemasan	Decreased Appetite						n	%
	Mild		Moderate		Severe			
	n	%	n	%	n	%		
No Anxiety	13	23,6	3	5,5	7	12,7	23	41,8
Moderate anxiety	1	1,8	0	0	8	3,6	3	5,5
Severe anxiety	5	9,1	8	14,5	16	29,1	29	52,7
Total	19	34,5	11	20	25	45,5	55	100

*r* Correlation=0,491 (p value=0,009; <math>\alpha=0,05</math>)

Table 11 shows that the respondents experienced severe anxiety level with decreased appetite weight as 16 people (29.1%) and respondents experiencing moderate anxiety level with mild appetite decrease of 1 person (1.8%). The result of analysis with Gamma coefficient test obtained result that correlation value equal to 0,491; p value = 0.009 <math>\alpha = 0.05</math> or it can be said that there is an anxiety level relationship with decreased appetite in breast cancer patients who perform chemotherapy in Edelwis Room Ulin General Hospital Banjarmasin (p = 0,009; <math>\alpha = 0,05</math>).

## DISCUSSION

### 1. Characteristics of Respondents (Breast Cancer Patients Who Conduct Chemotherapy in Edelwis Room Ulin General Hospital Banjarmasin)

#### a. Age of Breast Cancer Patients Who Conduct Chemotherapy in Edelwis Room Ulin Hospital Banjarmasin

The results showed that most respondents were > 35 years old for 45 people (81.8%) and respondents aged 20-35 years for 10 people (18.2%). Prevalence of respondents who experience breast cancer tends to increase with increasing age, this is due to the increasing age, the increase in cancer cell growth is increasing plus the pattern of life is less healthy.

Kesavadev *et. Al* (2013) in his journal mentions that in developing countries, the majority of breast cancer patients are aged > 35 years. The risk of someone to suffer from breast cancer will increase with age, especially aged over 35 years. The number of productive beta cells decreases with increasing age (Arisman, 2011).

#### b. Education of Breast Cancer Patients Who Conduct Chemotherapy in Edelwis Room Ulin General Hospital Banjarmasin

The results showed that most of the respondents of senior high school education as much as 29 people (52.7%)

and a small percentage of college education level respondents of 7 people (12.7%). According to the researcher's assumptions, the level of education affects a person's knowledge, but the high or low education does not have an impact on one's attitude in the early detection of breast cancer or other diseases. We recommend that someone with secondary and higher education periodically check the breast based on the techniques realized that can be obtained from health workers and social media or the internet.

#### c. Chemotherapy Duration

The results showed that some respondents performed chemotherapy for <1 year for 25 people (45.5%). Chemotherapy is a treatment for breast cancer disease that has spread or high stage, before surgery or surgery to shrink the size of the tumor (neoadjuvant therapy) and after surgery has done the state to reduce the spread, recurrence (adjuvant therapy). Side effects of temporary chemotherapy may include hair loss, dry mouth, mouth sores (stomatitis), difficulty or pain during swallowing (esophagitis), nausea, vomiting, diarrhea, constipation, fatigue, bleeding, more susceptible to infection, infertility, loss of appetite, changes in sense of taste, attenuation of consciousness, sometimes occurs in the brain chemo and liver damage.

## 2. Description of Respondent Anxiety Level

Results of research on the level of anxiety on the respondents showed that most respondents with anxiety level of weight of 52.7%. The results of this study in line with research Majaiyanto (2014) mentions that of 60 patients with breast cancer, as many as 52% of patients experience severe anxiety. Breast cancer patients who choose chemotherapy as a therapy for cancer treatment they experience then he will undergo chemotherapy for long periods of time even a lifetime. Chemotherapy can prevent the development of cancer cells and aims to kill the seeds of cancer in the body. The dependence of breast cancer patients on chemotherapy, will have widespread impact and cause problems both physically, psychosocially, and economically. Complexity.

## 3. Description of Decreased Appetite in Breast Cancer Patients Who Conduct Chemotherapy in Edelwis Room Ulin General Hospital Banjarmasin

The results of research on decreased appetite in breast cancer patients who do chemotherapy in Edelwis Room Ulin General Hospital Banjarmasin showed that most of the respondents experienced a decrease in appetite weight of 45.5%.

Decreased appetite in breast cancer patients can lead to decreased appetite due to the response of the body to substances

contained in chemotherapy drugs. These substances can increase stomach acid, resulting in nausea and vomiting for patients. Patients undergoing chemotherapy often complain of a decreased appetite that is reduced both due to dietary restrictions, as well as increased stomach acid. Patients often complain of nausea when they smell the food and vomit after eating. This results in chemotherapy patients experiencing weight loss is quite drastic (Smeltzer & Brenda, 2011).

The role of nurses in an effort to manage decreased appetite in breast cancer patients who underwent chemotherapy can do counseling about the importance of nutrition and nutrition for breast cancer patients. Breast cancer patients should fight the nausea by eating little by little with frequent frequency and reduce the foods that smell sharp. The nurse should also give advice to the family to increase support to breast cancer patients to always consume nutritious food and enough for himself, the family can invite meals with breast cancer patients regardless of the type of food consumed and always supervise the food consumed by patients (Mansjoer, 2010).

## 4. Description of Characteristic Respondents Based on Anxiety Level

### a. Age of Respondents by Level of Anxiety

Respondents aged > 35 years who experienced severe anxiety level as many as 26 people (89.7%). Respondents with age > 35 years who

experienced severe anxiety caused a person > 35 years of age less able to control emotions and respondents aged 20-35 years with moderate anxiety as many as 5 people (21.7%) have moderate anxiety because someone with 20- 35 years old is able to control their emotions well and think positively.

b. Education Respondents Based on Anxiety Level

Respondents with primary school who did not experience anxiety as much as 4 people (17,4%) and experienced severe anxiety level as many as 4 people (13,8%). Respondents with junior high school who experienced severe anxiety level as many as 6 people (20.7%). Respondents with senior high school education experienced severe anxiety level as many as 16 people (55.1%) of college educated respondents who did not experience anxiety as many as 4 people (17.4%) Higher education, if respondents are educated between high school graduated to college graduate. People with a high level of education will usually have a lot of knowledge about health. People will have awareness in maintaining their health. The level of education affects behavior and produces many changes, especially knowledge in health. The higher the level of formal education the more easily absorb information as well as

health information, so the higher the awareness to behave healthy life.

c. Duration of Chemotherapy Based on Anxiety Level

The results showed that respondents who took chemotherapy more than 3 years who did not experience anxiety and severe anxiety. This is due to the respondents who are treated more than 3 years but low anxiety level has good support from family and respo den because routine undergoing treatment so that the respondent have a high confidence to recover whereas old responders undergoing treatment > 3 years but experiencing anxiety which is hard because the respondents feel desperate. Anxiety in breast cancer patients who undergo chemotherapy can be assessed through the way the patient faces his illness and when the patient is undergoing chemotherapy. Breast cancer patients are very anxious to face the illness they experienced when they were first diagnosed by a doctor. The anxiety that breast cancer patients feel about quality of life, reproductive health, household life and even death (Rosjidi, 2010).

The results showed that respondents who took chemotherapy 1-3 years experienced severe anxiety. This is due to the respondents who already feel burdened both in terms of cost and suffering the illness that happened.

Treatment period 1-3 years is a period of adjustment of a person in the treatment where the body began to react to the effects of chemotherapy both negatively and positively so that respondents experiencing psychological changes in the face of such chemotherapy response including excessive anxiety (Friedman, 2008).

According to the researcher's assumptions, the conditions that force a person to routinely undergo chemotherapy and the uncertainty of the duration of the therapy is a strong stressor to trigger anxiety, besides that a patient with breast cancer also still bears the mind about the process of the course of the illness such as, illness, disease complications and dialysis therapy, eating and drinking restrictions that are part of therapy, financial, psychological and psychosocial issues.

#### 5. Relationship Level Anxiety with Decreased Appetite on Respondents

The results showed an association of anxiety level with decreased appetite in breast cancer patients who did chemotherapy in Edelwis Room Ulin Hospital Banjarmasin ( $p$  value =  $0.002 < \alpha = 0.05$ ). This study is in line with a study by Khairunnisa (2014), which mentions that anxiety breast cancer patients affect the decrease in appetite and reduce quality of life and health status of breast cancer patients ( $p = 0,000 < \alpha = 0.05$ ).

One of the efforts of health care workers to overcome excessive anxiety by providing education on how to control excessive anxiety in chemotherapy patients either presents a psychologist or a religious expert to breast cancer patients trying to improve the quality of life and are convinced of his recovery. Decreased appetite from the patient requires the support of others from both partners, family, friends and even from the social environment. Health workers are also advised to cope with dietary changes or decreased appetite in breast cancer patients due to chemotherapy by providing adequate nutritional intake or encouraging patients to avoid foods high in salt, sharp smelling or foods that are too sweet, while the role of the family should always provide support and the spirit of the patient to heal by providing updated information on treatment or how to reduce the risk of breast cancer, providing patients with support for routine chemotherapy, not excluding patients and taking care of the patient's nutritional intake (Rosjidi, 2010).

#### CONCLUSION

There is a significant relationship between anxiety level with decreased appetite in breast cancer patient who perform chemotherapy in Edelwis Room Ulin Hospital Banjarmasin.



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