

# Stress, Anxiety and Depression in Chemotherapy's Patient with Breast Cancer

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**Abstract:** Breast cancer is increases every year and very dangerous because it can cause death. Handling breast cancer can be done with chemotherapy. But chemotherapy treatment takes a long time with various side effects of chemotherapy accompanied by side effects from the cancer itself so that patients will experience psychological problems that can make the patient want to stop the treatment. This study aims to describe the stress levels, anxiety and depression of breast cancer patients breast cancer with chemotherapy. This research is descriptive. The sample of this study were breast cancer patients with chemotherapy in RSUP Haji Adam Malik Medan. Total of 41 patients taken by total sampling. The instrument used was DASS 42. The results of this study showed that 73.2% did not experience stress, 58.5% did not experience anxiety, 80.5% do not experience depression. It is recommended to the health service team to involve families in providing appropriate interventions to breast cancer patients who experience stress, anxiety and depression so as to reduce treatment time, save costs and increase productivity.

## 1 INTRODUCTION

Breast cancer is the most common cancer in women and is the second leading cause of death (Rasjidi, 2009) with the most number of occurrences of 26 per 100,000 in Indonesia (Gengatharan, 2013). Dharmis Cancer Hospital in Jakarta also report that a new case and mortality rate which a increasing every years (Ministry of Health Republic of Indonesia, 2015). Therefore, breast cancer is a disease most feared by women (Yanti, 2015).

One of the management of breast cancer is chemotherapy (Yanti, 2015) that using drugs or hormones it can be used effectively in diseases that have spread or are still localized (Rasjidi, 2007) although chemotherapy is toxic and dangerous to healthy cells (Sjamsuhidajat, 2005) but it is still a powerful remedy for cancer.

Stress will emerge when someone who knows for certain that he has breast cancer even in a very early stage (Mardiana, 2009 in Aruan, 2011). Irfani (2010 in Oetami, 2014) report that breast cancer patients feel stressed because of death and thinking of risks due to the effects of prolonged

chemotherapy treatment and financial demands that must be met in the implementation of treatment.

Stress causes a decrease in the efficacy of chemotherapy because stress affects the supply and release of hormones (Su, et al., 2003 in Ling, et al., 2009). Besides, stress causes a decrease in antibody production and increases the risk of infection (Suddarth, 2002). In addition, stress affects cell development to become wild and effects that weaken the immune system so T cells are not able to eliminate cancer cells that are formed (Junaidi, 2007).

Patients with chemotherapy not only experience stress but also has high levels of anxiety and depression compared to patients who receive radiation and / or surgical therapy (Mastro, 2002 in Sonia, 2014). Anxiety occurs early in treatment because of concerns about side effects and fear of results after treatment (Zuraida, 2010 in Sonia, 2014). The other of effect of chemotherapy are feeling sick, nausea, vomiting and afraid because the disease suffered from cancer cells (Oetami, 2014).

Research by Susanti (2012) report, patients felt very nauseous and 50% of them have a experienced vomiting. Nausea and vomiting can occur more frequently, if the number of chemotherapy cycles

undertaken also increases (Grunberg, 2005 in Marisa, 2014). Patients with cancer also has many experience such as depression caused by assessment of situations that reduce self-esteem, situations that hinder important goals, the presence of disease, and the presence of negative ideas due to physical decline (Pieter, 2011).

Hartati (2008) report that number of the breast cancer sufferers is a 33%, 66.3% of them experienced low self-esteem cause of husbands being indifferent, family acceptance with insincerity, loss of confidence and enthusiasm, feelings of shame if others know the illness, changes in daily activities.

In addition, depression arises because the cancer situation is perceived as frightening and has a serious impact on its physical and social conditions Moorey (2012 in Haryathi, 2014). Haryathi (2014) said that patients experience depression due to frequent thinking about the illness and the impact of its treatment makes a person become helpless. The impact of depression experienced will reduce a person's quality of life, reduce compliance in management and increase the risk of mortality (Gross, 2007 in Amin, 2008). This study aims to identify stress, anxiety and depression experienced by breast cancer patients undergoing chemotherapy at Hospital Medan.

## 2 METODHS

The research design is descriptive with total sampling technique.. The number of samples was 41 breast cancer patients who undergoing chemotherapy at Hospital Medan. The instrument used is DASS 42 (Depression Anxiety Stress Scale). Questionnaire modified from DASS 42 (Depressive Depression Anxiety Scale) published by the Psychology Foundation of Australia. The results of the validity test is 100% valid with the value of the validity validity index (CVI) is 0.67. The reliability test results are 0.94.

## 3 RESULT

The results showed that all patients were female, had been married and used insurance from government (BPJS) for treatment as many as 41 people (100%); the majority of patients were in the age range of 46-55 years as many as 16 people (39%); the majority of Islamic patients were 32 people (78%); the

majority of Javanese patients are 16 people (39%); the majority of patients with a junior high school education background were 15 people (36.6%); the majority of patients had 27 housewives (65.9%); the majority of patients earn Rp. <1,000,000 which is 34 people (82.9%); the majority of patients were in stage II as many as 17 people (41.5%); the majority of patients underwent chemotherapy treatment and mastectomy as many as 28 people (68.3%); the majority of patients underwent chemotherapy 4-6 times, namely 22 people (53.7%), the majority of patients had breast cancer for > 1 year as many as 35 people (85.4%).

Table 1. Data of Demographic of cancer patients in Hospital (n= 41)

Characteristics of Respondents	frequency	Percenta ge (%)
<b>Sex</b>		
Female	41	100,0
Male	0	0
<b>Marital</b>		
Married	41	100,0
Not Married	0	0
<b>Health Insurance</b>		
Health Insurance	41	100,0
Not Health Insurance	0	0
<b>Age</b>		
26-35 years	3	7,3
36-45 years	12	29,3
46-55 years	16	39,0
56-65 years	10	24,4
<b>Religion</b>		
Moslem	32	78,0
Christian	8	19,5
Catholic	1	2,4
<b>Ethnic</b>		
Padangnese	2	4,9
Melayunese	3	7,3
Jawanese	16	39,0
Bataknese	11	26,8
Niasnese	2	4,9
Acehnese	7	17,1
<b>Education</b>		
Primary School	9	22,0
Junior School	15	36,6
High School	11	26,8
University	6	14,6
<b>Chemotherapy status</b>		
1-3 years	13	31,7
4-6 years	22	53,7
>6 years	6	14,5

<b>Treatment</b>		
Chemotherapy	13	31,7
Chemotherapy & mastectomy	28	68,3
<b>Stadium</b>		
Level 1	3	7,3
Level 2	17	41,5
Level 3	13	31,7
Level 4	8	19,5
<b>Occupational</b>		
House Wive	27	65,9
Government Employees	6	14,6
Farmer	5	12,2
Enterprenuer	2	4,9
Retired	1	2,4
<b>Income</b>		
<1 million	34	82,9
1.5 million – 2 million	1	2,4
> 2 million	6	14,6
<b>Long Illness</b>		
<1 year	6	14,6
>1 year	35	85,4

Table 2 .Distribution of frequency stress, anxiety and depression ( n = 41)

Category	Frequency (f)	Percentage (%)
<b>Stress</b>		
1. No Stress	30	73,2
2. Low Stress	7	17,1
3. Moderate Stress	4	9,8
<b>Anxiety</b>		
1. No Anxiety	24	58,5
2. Low Anxiety	6	14,6
3. Moderate Anxiety	6	14,6
4. High Anxiety	2	4,9
5. Highest Anxiety	3	7,3
<b>Depression</b>		
1. No Depression	33	80,5
2. Low Depression	4	9,8
3. <b>Moderate</b>	2	4,9
4. <b>High</b>	2	4,9
<b>Depression</b>		

The results showed that the majority of breast cancer patients who were undergoing chemotherapy at Hospital Medan were not stressed as many as 30 people (73.2%), no anxiety as many as 24 people

(58.5%), not depressed as many as 33 people (80,5%),

## 4 DISCUSSION

The results showed that breast cancer patients who underwent chemotherapy did not experience stress as much as 73.2% and experienced stress as much as 28.8%. Stress experienced according to Keliat (1999) can from physiological changes that occur due to signs and symptoms of the disease. Rochmawati (2015) who stated that despite experiencing loss of part of the body when previously operated on, changes in body shape, hair loss, but did not cause poor self-image perception. One perception of a good self-image is due to age. cause old age factors self-image to be ignored. This study showed that all patients who were aged 56-65 years had no stress.

According to Rochmawati (2015) another factor that causes the perception of good self-image is the absence of changes in body shape because the illness suffered recently. This is consistent with the results of the study which showed that patients who were sick for more than 1 year had mild stress and moderate level of stress, in contrast to patients whose <1 year old illness showed that none of them experienced moderate stress only experienced mild stress levels.

Besides, stress can be solved by solving problems, responding to changes or threatening situations that called coping (Keliat, 1999). One coping strategy is emotion focused coping, which is an effort to overcome stress by regulating emotional responses in order to adjust to the impact that will be caused by a condition or situation that is considered stressful (Lazarus, 1984). According to Saragih (2010) the coping of patients on chemotherapy treatment in the good category was 12 people (48%). This is supported by Aini's research (2015) which states that patients perceive unpleasant experiences as a challenge to life by being grateful and giving up their life problems to God. In addition, the perspective on life becomes more positive so that it increasingly struggles with cancer (Junaidi,2007) . Research by Yanti (2015) which states that patients also continue to strive to be able to do a good and healthy lifestyle, including taking care of the environment to avoid cigarette smoke and optimism for recovery is increasing (Wardiyah, 2012)

Researchers observed that the majority of patients were placed in a chemotherapy room

because in one room there were several patients, patients in general patients revealed that they felt they had more hope after hearing the experiences of other patients who had the same cancer and managed to survive and live their daily lives well. So all of them was eager to be optimistic about undergoing treatment because the group gave a real picture of the success of cancer treatment( Suryani , 2014).

All patients in this study were married and the observations of the researchers, the majority of patients were accompanied by their families at the time of treatment. Breast cancer patients needed support while chemotherapy it can decreasing stress Keliat (1999) and can be improve the ability of patients to resolve stress (Saragih, 2010). Family support is taking patients to treatment, reminding them that chemotherapy is not too late, reminding them to take drugs, and keeping other family members if they seek treatment (Rochmawati's 2015).

Therefore, patients have a strong desire to recover because of their love and affection for their children so they can always be together and accompany their children and make children as motivation to recover. ( Aini, 2015)

In addition to being married, the majority of patients also have more than 50 years of age as much as 41.4%, optimism of healing is also influenced by the age of marriage (Wardiyah , 2012)

The length of marriage affects breast cancer patients in interpreting the meaning of marriage, for newly married patients, sexual needs are still a priority in relationships with partners. Different things happen to patients who have been married for a long time, they interpret marriage as a bond of love, mutual ownership, respect, and mutual care for each other. The patient has entered the stage of emotional maturity, closeness to God and is ready to face death. This is consistent with the results of a study showing that no patients experience stress above the age of 55 years. Someone who is able to recognize and manage stress appropriately is the character of someone who has good resilience. Resilience is the ability of individuals to face, overcome, strengthen themselves, and continue to make changes in connection with the exam experienced (Grotberg 1999, in Listianty, 2012). Resilience refers to the positive side of a person who distinguishes them from others when experiencing stress (Campbell, 2009 in Min, 2012). Good resilience means not only having a high tolerance for stress but also understanding ways to overcome the

causes and symptoms of stress. This can be seen from someone whose resilience is well aware when experiencing failure but can see it as an opportunity to move forward and accept that failure as part of life (Nisa, 2013). Therefore, resilience is negatively related to stress levels (Norman, 2001) and good resilience is associated with good quality of life and low stress levels so that resilience can help a person reduce psychological burden (Cohen, 2014 in Li, 2016). Besides that good resilience is also associated with good coping (Davidson, 2005 in Min, 2012).

The form of resilience that is used in cancer patients is to motivate themselves, to convince themselves that all this can certainly be passed, start looking for friends as much as possible, often refreshing with friends (Nisa, 2013). Optimism, responsibility, ability to cope with stress and anxiety, focusing on problem solving are elements that contribute to improving one's resilience (Herth, 1992; Snyder et al., 1991 in Molina, 2016). In addition, spirituality is also expected to improve one's resilience (Min, 2012).

The results showed 58.5% of patients did not experience anxiety and 41.5% experienced anxiety. The perceived anxiety can cause anger which is manifested by insult, or blame the nurse for the situation and health services he receives (Keliat 1996). However, Tiolena's (2009) study stated that all breast cancer patients stated that the treatment facilities at Adam Malik General Hospital Medan were more complete than the previous treatment facilities and all patients believed that health workers could treat the disease and cure the disease because the attitudes of health workers were considered good by patient. This is consistent with the results of the study showing that the majority of patients are not anxious.

In addition to obtaining family support according to Suddarth (2002) anxiety can be lost when the patient knows the side effects of treatment and a way out of the problem at hand. This is consistent with the results of research showing that patients with no tertiary education have experienced severe anxiety. It's different with those who have elementary, middle and high school education having very severe anxiety. This is supported by Tiolena (2009) stating that breast cancer patients do not have knowledge about the disease and even find out BSE (breast self examination) when told by health workers.

Besides having knowledge, patients also have experience in chemotherapy. The majority of patients in this study were undergoing chemotherapy 4-6 times. According to Utami (2013) there is an

influence of the patient's experience on the level of anxiety in undergoing chemotherapy. This is in agreement with Silalahi (2014) who stated that the initial experience that had been about chemotherapy would reduce the level of patient anxiety later on. This is consistent with the results of the study that patients who had more than 6 times chemotherapy only experienced mild and moderate anxiety and none experienced severe and very severe anxiety. Unlike those who underwent a cycle of 1-3 times, there were those who experienced very severe anxiety. According to Sari (2012) anxiety occurs because patients have not adapted to perceived side effects.

The other factor related to anxiety is resilience, Bitsika (2010) states that resilience is negatively related to anxiety, resilience is the ability to survive and not despair of bad events or calamities and is able to take lessons from what happened to be able to rise again (Listianty, 2012). Resilience can reduce anxiety that is being experienced by developing optimism, a sense of responsibility, tolerance, ability to adapt, and a view of reality (Bitsika, 2010). In addition, spirituality and ways of interpreting life also contribute to increasing the level of one's resilience (Min, 2012) a high level of resilience that will improve a person's quality of life (Li, 2016).

Setiyaningsih (2011) who said that there was no significant relationship between resilience and anxiety in undergoing chemotherapy. This is possible because the patient's knowledge and experience contribute significantly to reducing anxiety rather than resilience. This is shown by as many as 48 patients having high resilience and 27 patients experiencing anxiety facing low chemotherapy. Two patients had moderate levels of resilience and 15 patients had anxiety levels undergoing chemotherapy. There are no patients who have low resilience, whereas as many as 8 patients have high anxiety in undergoing chemotherapy.

All patients in this study were married. According to Ningsih (2015) the better the family support, the lower the level of patient anxiety. This result is supported by Sari's (2012) study which states that family support can motivate patients to undergo chemotherapy more. The patient feels that there are still those who give attention, love or someone who cares for him even though he is sick. Agree with Aruan (2011) which states that all patients receive support from the family, in the form of prayer support, encouragement, and financial support. In addition, the support given by Oetami (2014) makes patients eager to seek treatment, do

not care and relax, because many families are entertaining.

The majority of patients work as housewives as much as 65.9%. Ningsih (2015) states that by acting as a housewife the patient does not feel embarrassed despite suffering from breast cancer because a housewife does not have a lot of work outside the home, she often interacts with neighbours in the surrounding environment so she does not have intensity high that requires interacting with people outside the home. This is consistent with the results of research that 56.1% of patients do not feel embarrassed.

The majority of patients have had breast cancer for more than 35 years (85.4%). The longer the patient is sick, the patient will be more accustomed to treatment and its side effects (Sari, 2012). In addition, someone will form new behaviours to adapt and anticipate grieving (Potter & Perry, 2005 in Siburian 2012). This is in accordance with the study that patients who had more than one year of illness were the majority who did not experience anxiety as much as 51.2%. In accordance with Aini's research (2015) which states that patients also do not question if they have to lose their breasts because the most important thing for him is his health.

The results showed that 80.5% of breast cancer patients who underwent chemotherapy were not depressed and 19.5% had depression. According to Suryani (2016) a person who is first diagnosed with cancer will experience depression so that it stimulates the patient to develop coping strategies. The majority of patients have had breast cancer for more than one year as many as 35 people (85.4%). So according to Suryani (2016) patients have been able to develop coping strategies, among others, refusing, getting closer to Allah SWT, seeking opinions from other health professionals (second opinion), discussing the situation experienced by a partner / family, searching for various alternative treatments, discussion with other cancer patients who have already been diagnosed, ask for a doctor's direction to diagnose related actions. This is in accordance with the results of the study of patients who had experienced pain > 1 year, the majority did not experience depression as much as 82.9%. Another case with those who experienced pain < 1 year who did not experience depression as much as 66.7%. This is supported by Guan (2015) stating that a better quality of life after 12 weeks was diagnosed with breast cancer.

Another factor that contributes to reducing the level of depression of patients according to Dewi (2004) and (Burton, 2009 in Min, 2012) is resilience,



they state that resilience can also reduce the level of depression. Individuals who are in a good state of resilience can experience decreased levels of depression. This can improve the stability of individual emotional health. So, if an individual has a high resilience score, it will have a low depression score, and vice versa (Hiew, 2000 in Fransisca, 2004).

Resilience is the ability of individuals to adapt and place themselves well towards unpleasant experiences or in situations of severe problems (Nisa, 2012). Therefore, Dewi (2004) states that the higher the resilience dimension consisting of "I Have", "I am", and "I can" factors, the lower the depression experienced by women undergoing breast cancer treatment. Dimensions "I have" Sourced from the power of support that exists from the outside of the individual, "I am" comes from the strength contained in the individual and "I can" comes from social support and interpersonal skills. In addition, high patient resilience, influenced by social support and spiritual (Listianty, 2012) Likewise, the low level of spirituality causes low resilience as well (Min, 2012).

## 5 CONCLUSIONS

The results of this study are expected to be additional information and input for nursing education, as well as be able to educate future nurses so that they better understand human psychological needs and are able to help the surrounding people who are dealing with sources of stress, anxiety and depression in their lives. For nursing practice is expected to be able to use this research as a reference for nurses in providing health education about patients who experience stress, anxiety and depression even though the results of the study found that overall patients did not experience stress, anxiety and depression but when viewed from each item the questionnaire was still some are not satisfying. For further researchers, it is expected to further develop this research by looking at factors that influence stress, anxiety and depression.

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