Relationship Between Motivation And Adherence To Chemotherapy In Breast Cancer Patients

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ABSTRACT

Cancer is one of the most common non-communicable diseases in the world. One of the most common types of cancer suffered by women is breast cancer. One of the management of cancer cases is by way of chemotherapy. Patients who undergo chemotherapy will have a greater chance of recovery compared to patients who do not undergo treatment. One of the factors that can improve patient compliance is motivation. This study aims to determine the relationship between motivation and adherence to chemotherapy in breast cancer patients. The type of research used is correlational with *a cross sectional design.* Sampling using *a consecutive sampling* technique of 79 people, located at Bali Mandara Hospital. The research was conducted using the IMI questionnaire to measure motivation and MMAS to measure patient compliance. The results showed that breast cancer patients undergoing chemotherapy had strong motivation, namely 36 samples (45.6%). Meanwhile, 42 samples (53.2%) were obtained with high adherence to undergoing chemotherapy. The results of *the Rank Spearman* test showed a significance value of 0.000 ($p < 0.05$) which means that there was a significant relationship between motivation and patient compliance in undergoing chemotherapy.

Keywords : Breast cancer, chemotherapy, compliance, motivation

Introduction

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Cancer is one of the most common non-communicable diseases in developed and developing countries (Cahyawati, 2018). Cancer is a condition in which tissues and cells grow and develop very quickly and uncontrollably. This disease can spread between cells and tissues and interfere with the body's metabolic function. Breast cancer is one of the worst types of cancer in the world (Lestari and Wulansari, 2018). The number of people with this cancer jumps drastically every year.

Based on data from the World Health Organization *World Health Organization* In 2020, there were 2.3 million women diagnosed with breast cancer and 685,000 deaths globally. In the 5-year period until the end of 2020, a total of 7.8 million women had breast cancer, making it one of the most terrible diseases among women. According to data from *Global Burden of Cancer* (GLOBOCAN), it is known that until the end of 2020 the largest cases of breast cancer occurred on the Asian continent, namely 1,026,171 new cases and 346,009 deaths (Globocan, 2020).

In Indonesia, breast cancer is ranked first in terms of the number of contributors to the highest mortality rate due to cancer (Ministry of Health of the Republic of Indonesia, 2022). It is recorded that the number of women with cancer in Indonesia is estimated to increase by 65,000 new cases every year (Public, 2022). Speaking of this, breast cancer cases also occurred in Bali Province in the 2018-2019 period. In this period, breast cancer cases have also decreased from 536 people to 256 people. However, new cases are increasing to 944 people in 2020 (Bali Health Office, 2021).

The number of breast cancer sufferers is relatively high due to the reluctance to carry out early examinations and detection. The reluctance arises because of the fear of the disease suffered. Therefore, the government implements 3 pillars of cancer control, namely promotive health services, early detection, and case management (Ministry of Health, 2022).

Case management of surgery, radiation, chemotherapy, immunotherapy, and hormone treatment are all used to treat cancer (Kolin dkk., 2016). Chemotherapy is one of the palliative therapies given to breast cancer patients. Chemotherapy is a type of cancer treatment that uses drugs to try to inhibit the development of cancer cells (Yanti dkk., 2021).

The side effects experienced by patients undergoing chemotherapy are hair loss, nausea, vomiting, fatigue, sleep disturbances and weight loss (Rahayawati DKK., 2017). With various side effects that occur while undergoing chemotherapy, this will affect the patient's compliance in undergoing treatment. Patients who undergo chemotherapy will have a greater chance of recovery than those who do not. Therefore, compliance is very necessary when undergoing chemotherapy to get the best results.

According to the Great Dictionary of the Indonesian Language (KBBI), the word obedience comes from the root word obey which means to like to obey. Obedient means obeying rules or instructions. If you follow the treatment instructions given, it will help in the healing process. The impact if you do not comply with treatment is that it can cause medical conditions to worsen, the pain suffered for a longer time to cause death (Ndruru, 2020). One of the factors that can improve patient compliance is motivation and expectation.

Self-motivation of breast cancer patients is urgently needed for a change in their health status (Hidayat Fahrul, 2023). According to Fatmawati and Prastiwi (2021), motivation is the drive that a person has to take action towards a goal. For cancer patients, motivation is a powerful and important component that helps them to consistently undergo chemotherapy treatment (Sri Asnita dkk., 2020). In contrast to someone who has low

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motivation, someone with high motivation tends to behave obediently.

The results of a study conducted by Asnita (2020) with the title "The Relationship of Self-Motivation to the Sustainability of Chemotherapy Treatment in Cancer Patients". There were eighty-five respondents in the survey. Based on statistical research, most respondents (62.4%) showed a high level of self-motivation, and (95.3%) respondents were able to continue undergoing chemotherapy treatment. Therefore, self-motivation and continued use of chemotherapy in cancer patients have a relationship.

Research conducted by Anita (2023) with the title "Relations Between *Self Efficacy* With self-motivation of breast cancer patients in undergoing chemotherapy treatment". This study used 84 samples and obtained results, namely that there was a relationship between self-efficacy and self-motivation of breast cancer patients in undergoing chemotherapy treatment at Baladhika Husada Hospital, Jember. Results show *self efficacy* in the high category (71.4%) and high self-motivation (58.3%).

Based on research conducted by Sismiati (2023), research conducted at Margono Hospital showed that most breast cancer patients have a high level of knowledge about the disease (47.5%), moderate family support (63.1%), high self-motivation to recover (52.7%), low self-motivation to recover (19.7%), adherence to chemotherapy treatment by (72.3%) and as many as (27.7%) non-compliance. In addition, this study showed that there was a relationship between self-motivation, education, and family support of breast cancer patients and their adherence to chemotherapy treatment.

Based on a preliminary study conducted by researchers at Bali Mandara General Hospital, data obtained through the Hospital Management Information System from 2021 to mid-2023 has increased from year to year. It is recorded in medical record data that the number of breast cancer cases in 2021 who underwent outpatient services was 50 people, then in 2022 as many as 95 people, then in the middle of 2023 it became as many as 99 people (*Management* Bali Mandara, 2023).

Based on the above background, the researcher is interested in researching the relationship between motivation and adherence to undergoing chemotherapy in breast cancer patients at Bali Mandara Hospital.

Method
The type of research used in the study is *cross sectional study.* It will be held at Bali Mandara Hospital in March-April 2024. The number of samples was 79 people with *the Non-probabillity sampling* technique, with *the consecutive sampling method. The inclusion criteria in this study are* to undergo chemotherapy at least once. The questionnaire used is a researcher development and has been tested for validity and reality.

The primary data collected were age, last education, occupation, marital status, motivation data and adherence to chemotherapy. Data is analyzed by test *rank spearman* Results obtained *p value (nilai Sig (2-tailed))* by 0.000. which shows there is a relationship between patient motivation and compliance. The results of the analysis also showed that the correlation (*r*) of 0,841 which shows a strong connection.

Result and Discussion
Table 1

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Characteristics of Respondents Based on Age at Bali Mandara Hospital

It	Age	Frequency	Percentage (%)
1	17-25 years old (Late Teens)	1	1,3
2	26-35 Years (Early Adult)	5	6,3
3	36-45 Years (Late Adult)	15	19
4	46-55 Years (Early Senior)	34	43
5	56-65 Years (Late Elderly)	21	26,6
6	>65 Years (Senior)	3	3,8
	Total	79	100

Based on the data that has been presented in Table 1, the most respondents were 46-55 years old (early elderly), which was 34 people (43%).

Table 2
Characteristics of Respondents Based on Education at Bali Mandara Hospital

No	Education	Frequency	Percentage (%)
1	Not in school	9	11,4
2	SD	19	24,1
3	SMP	11	13,9
4	SMA	20	25,3
5	College	20	25,3
	Total	79	100

Based on the presentation of data in table 2, it can be seen that most of the respondents have high school and university education, namely 20 samples (25.3%) each.

Table 3
Characteristics of Respondents Based on Occupation at Bali Mandara Hospital

No	Work	Frequency	Percentage (%)
1	PNS	6	7,6
2	Self employed	21	26,6
3	A	10	12,7
4	Farmer	1	1,3
5	Housewives	41	51,9
	Total	79	100

Based on the presentation of data in table 3, it is known that most of the respondents are housewives, namely 41 samples (51.9%).

Table 4
Characteristics of Respondents Based on Marriage Status at Bali Mandara Hospital

No	Marital Status	Frequency	Percentage (%)
1	Marry	77	97,5
2	Unmarried	2	2,5
	Total	79	100

Based on the data presented in table 4, it is known that most of the samples in this study are married, namely 77 samples (97.5%)

Table 5

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Distribution of Frequency of Breast Cancer Patients Undergoing Chemotherapy Based on Motivation at Bali Mandara Hospital

No	Self-Motivation	Frequency	Percentage (%)
1	Weak	20	25,3
2	Moderate	23	29,1
3	Strong	36	45,6
	Total	79	100

According to the results of the analysis of research data, it can be seen that of the 79 research samples, there are 20 samples (25.3%) that have weak self-motivation, 23 samples (29.1%) have moderate self-motivation, and 36 samples (45.6%) have strong motivation. Motivation is a psychological process that reflects the interaction between attitudes, needs, perceptions, and decisions that occur in a person. Motivation as a psychological process arises due to factors within a person himself and factors outside him (Putra 2020).

Meanwhile, according to Uno (2017), motivation is an internal and external impulse in a person that is indicated by the existence of desires, interests, encouragements, needs and expectations. This statement is also relevant to Naomi (2019) who said that motivation is a process in which needs encourage a person to carry out a series of activities that lead to the achievement of certain goals.

The results of this study are supported by research carried out by Rusmiati & Maria (2023) The results obtained were that most of the samples had high motivation, namely as many as 40 people (65%). The study also mentioned that there are several factors that can increase motivation to achieve recovery in patients, such as intrinsic factors (within oneself) and extrinsic factors such as support from family and close people.

This is different from the results of the research carried out by Sudrajat, et al (2020)

The results obtained were that most of the respondents had low motivation, namely as many as 18 respondents (60%). In addition, the study also mentioned that there are other aspects that affect patient motivation, including husband support and internal motivation in the form of knowledge.

Based on several theories and the results of the study, the researcher assumes that most of the respondents at Bali Mandara Hospital who have strong motivation are due to the support of their families. In addition, the strength of the patient's motivation can be influenced by the level of knowledge the patient has. The higher the level of education taken, the more it will affect a person's knowledge to be able to maintain health. Patients who have good motivation will show good behavior in undergoing treatment so that further complications do not occur.

Table 6
Distribution of Frequency of Breast Cancer Patients Undergoing Chemotherapy Based on Compliance at Bali Mandara Hospital

It	Compliance	Frequency	Percentage (%)
1	Low	20	25,3
2	Moderate	17	21,5
3	High	42	53,2
	Total	79	100

According to the results of the analysis of the research data, it can be seen that of the 79 research samples, there are 20 samples (25.3%) with low compliance, 17 samples (21.5%) with moderate compliance, and 42 samples (53.2%) with high compliance.

Compliance is a person's positive behavior in achieving certain goals (Rosa, 2018). Treatment compliance is an attitude or obedience to fulfill the recommendations of health workers without being forced to take

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action (Ernawati, 2020). Breast cancer patients who have high compliance have a better quality of life, namely in their health status, body image, and future perspective. Patients who have low compliance have an impact on the patient's lower quality of life. This is because the drugs he consumes do not provide optimal effects and there is a decrease in physical condition (Saputra, dkk, 2021).

The results of this study are in line with the results of the research carried out Wulandari, et al (2022) The results obtained were that most of the patients' compliance levels were classified as high and moderate, namely 18 samples (45%) each. In addition, there is research conducted by (Dewi, 2020) It also mentioned that patient non-compliance in treatment was intentional or not. Deliberate factors include distrust of treatment, lack of cost, and patient ignorance, while unintentional factors include forgetting to undergo treatment.

Based on this, the researcher assumes that the patient's compliance in undergoing chemotherapy at Bali Mandara Hospital is influenced by factors in the patient, namely the belief in his recovery. In addition, several other factors that affect patient compliance are the support from family and relationships with health professionals. Health workers will always contact patients if they do not receive treatment according to the predetermined schedule. So that most patients who undergo chemotherapy at Bali Mandara Hospital have high compliance.

Bivariate Analysis of the Relationship between Motivation and Adherence to Chemotherapy in Breast Cancer Patients at Bali Mandara Hospital

Motivation	Chemotherapy Compliance								*p*	*r*
	Low		Moderate		High		Total			
	n	%	n	%	n	%	n	%		
Weak	12	15,2	8	10,1	0	0	20	25,3		
Moderate	8	10,1	9	11,4	6	7,6	23	29,1	0,000	0,841
Strong	0	0	0	0	36	45,6	36	45,6		
Total	20	25,3	17	21,5	42	53,2	79	100		

Based on the results of bivariate analysis with *Rank Spearman,* a significance value of 0.000 (*p* < 0.05) was obtained, so it can be said that there is a significant relationship between self-motivation and patient compliance in undergoing chemotherapy. In addition, an *r* value or correlation coefficient of 0.841 was also obtained, which means a positive or unidirectional relationship with a very strong relationship level. A unidirectional or positive relationship means that the higher the patient's self-motivation, the higher the level of compliance in undergoing chemotherapy treatment. And vice versa, the lower the self-motivation in the patient, the lower the patient's compliance in undergoing chemotherapy treatment.

These results are in line with the research carried out by Asnita dkk (2020) which revealed that patients who have strong self-motivation will show the sustainability of their chemotherapy treatment according to the schedule. Self-motivation is a form of trust and attitude that patients with chemotherapy have. The existence of self-motivation makes patients not feel fear related to the side effects that may arise from the chemotherapy they are undergoing.

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The statement is also supported by Rosaulina & Tane (2022) In the results of the research he carried out, it was stated that there was a significant relationship between self-motivation and adherence to undergoing chemotherapy. Delayed treatment will result in worsening health. Therefore, high self-motivation is needed in carrying out chemotherapy.

So the researcher interprets that the stronger the level of motivation that the patient has, the higher the patient's compliance in undergoing chemotherapy, and vice versa. So that good treatment adherence can be continued when the patient has a strong motivation to do chemotherapy. The right motivation is intrinsic motivation, because intrinsic motivation is an encouragement from within a person, for example, to achieve a better degree of health and can also be influenced by the external environment such as family support and health workers.

Conclusion

Conflict Of Interest

Acknowledgement

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