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## **The Effect of Massage Therapy on the Quality of Life of Cancer Patients in the Indonesia Zakat Initiative Foundation (IZI) Semarang**

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### **Abstract**

**Background and aim:** Cancer is the second cause of death after cardiovascular disease, where the symptoms are almost uncontrolled in 70% to 80% of cancer cases, especially when the healing phase has ended and the patient has entered the palliative stage. Cancer itself has been recognized as a disease that has serious physical and psychological consequences for sufferers. Efforts are being made to improve the quality of life of cancer patients, one of which is by anticipating physical and psychological symptoms. To reduce the side effects of modern therapy, many breast cancer sufferers use complementary therapies. One of the complementary interventions that can be given to cancer patients is therapeutic massage. This therapeutic massage can help reduce the side effects felt by cancer patients after undergoing therapy to determine the effect of massage therapy on the quality of life of cancer patients at the IZI Halfway House (Indonesian Zakat Initiative), Semarang.

**Materials and methods:** This type of research is experimental with a design *statistical group comparison* with design *pre and post test control group design*. The sampling used *technique non-probability sampling with quota sampling*, the instrument used in this study was a quality of life questionnaire.

**Results:** The results showed that there was an effect of massage therapy on cancer patients on the quality of life of patients before and after massage therapy. The average respondent before the massage therapy was good quality of life from 2 to 6 respondents and respondents with sufficient quality of life from 4 to 6 respondents.

**Conclusion:** The results showed that there was an effect of massage therapy in cancer patients on the quality of life of patients before and after therapeutic massage.

**Keywords:** *Massage Therapy, Quality of Life, Cancer Patients*

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## Introduction

Cancer is the second leading cause of death after cardiovascular disease, where the symptoms are almost uncontrolled in 70% to 80% of cancer cases, especially when the healing phase has ended and the patient has entered the palliative stage [1]. From 2005 to 2010, WHO estimates that there are 58 million deaths due to chronic diseases and 7.6 million due to cancer. Gynecological cancer is a type of cancer that often occurs in women after breast cancer, colon cancer and lung cancer. Based on the estimation of Globocan, IARC 2012 in [2], cervical cancer and ovarian cancer are the most common gynecological cancers in Indonesia.

Cancer itself has been recognized as a disease that has serious physical and psychological consequences for sufferers. Cancer has been recognized as a disease that has serious physical and psychological consequences for sufferers. Developments in the detection and treatment of cancer have greatly helped reduce the death rate from cancer, but being diagnosed with cancer is still a deep stressor for sufferers and this is related to people's perceptions about cancer which is synonymous with death, pain and suffering [3]. A study conducted by [4] assessed the quality of life of cancer patients undergoing chemotherapy at Sardjito Hospital Yogyakarta, showing that the quality of life for cancer patients has decreased after chemotherapy therapy. One of the efforts to improve the quality of life of cancer patients is by anticipating physical and psychological symptoms. Research conducted by [5] stated that efforts to improve the quality of life of cancer patients during treatment will improve patient adherence to treatment and medication and give patients the strength to overcome various symptoms or complaints experienced by patients. To reduce the side effects of modern therapy, breast cancer sufferers many use complementary therapies [6].

Research conducted by [7] and [6] showed a significant positive relationship between modern and complementary therapies and the quality of life of breast cancer patients. People tend to use complementary therapies because many therapies promise 100% cure and can treat various types of diseases, but there are not many studies that prove it. One of the complementary interventions that can be given to cancer patients is therapeutic massage. This therapeutic massage can help reduce the side effects felt by cancer patients after undergoing therapy. Massage therapy is a type of massage used to treat injuries. The goals of therapeutic massage are [1] improving circulation of blood and lymph fluids, [2] repositioning the parts of the body that have suffered from dislocation injuries, especially joints to their original positions, and [3] utilizing relaxation, stimulation, and refreshment to produce excellent health.

Based on the description above, the researcher is interested and wants to do research with the title of the effect of massage therapy on the quality of life of cancer patients at the IZI Halfway House (Indonesian Zakat Initiative) Semarang.

## Material and Methods

Research is an experimental design with a *statistical group comparison* with a design *pre and post test control group design*. The sampling used *technique non-probability sampling with quota sampling* and the instrument used in this study was a quality of life questionnaire, which aims to determine the effect of massage therapy on the quality of life of cancer patients at the IZI Singgah House (Indonesian Zakat Initiative) Semarang. The subjects in this study were cancer patients who were undergoing chemotherapy at the IZI halfway house in Semarang. The statistical test used to determine the effect of massage therapy on quality of life was using the test *chi square*.

**Results**

This study was conducted on all post chemotherapy cancer patients at IZI Halfway House. During this period, 12 cancer patients met the inclusion criteria. This research was conducted in the form of an experiment with a design *pre and post test control group design*. The determination of the research subject was carried out by means of *nonprobability sampling with quota sampling*, then the subjects who met the research criteria were divided into 2 groups, namely control and treatment.

**Table 1.** Characteristics of Respondents

Characteristics of	The Treatment Group			
	Massage		Non-	
	N	%	N	%
<b>Age</b>				
20-35 Years	2	33.30%	3	50%
> 35 Years	4	66.60%	3	50%
<b>Education</b>				
No School	2	33.30%	-	0%
Junior High School	1	16.60%	2	33.30%
High School	3	50%	4	66.60%
<b>Work</b>				
Housewife	5	83.30%	4	66.60%
Labor	1	16.60%	2	33.30%
<b>Cancer</b>				
stage Stage 1	-	0%	-	0%
Stage 2	-	0%	4	66.60%
Stage 3	4	66.60%	2	33.30%
Stage 4	2	33.30%	-	0%
<b>Duration of therapy</b>				
2-3 Sunday	-	0%	-	0%
3-4 Sunday	6	100%	6	100%
<b>Tribes</b>				
Javanese	6	100%	6	100%
Sunda	-	0%	-	0%

Based on the age characteristics of the respondents who received therapeutic massage, age > 35 years 66.6% more than respondents aged 20-35 years as much as 33.3%, respondents who did not receive therapeutic massage aged > 35 years were 50% and aged 20 - 35 as much as 50%. The education of the respondents who received massage therapy was 50% high school education, 16.6% junior high school education and 33.3% non-school or elementary education. 66.6% of those who did not do massage therapy were high school education, 33.3% junior high school education and 0% non-school or elementary education. Respondents' occupations that were performed massage therapy were labor occupations as much as 16.6%, housewife jobs were 83.3%, those who did not massage were labor jobs as much as 33.3% and housewives were 66.6%, cancer stages were carried out by massage stage 3 there were 66.6% and stage 4 there were 33.3%, while those who did not do stage 2 massage were 66.6% and stage 3 there were 33.3%, all respondents who were either given massage or not got the same therapy 3 -4 weeks and both come from the Javanese tribe.

**Table 2.** Quality of Life for Cancer Patients before and after massage therapy

Quality of Life for Cancer Patients	Quality of life is good.		Quality of life is adequate	
	N	%	N	%
Before treatment	2	33.3%	4	66.6%
After treatment	6	100%	6	100%
Control before	1	16.6%	2	33.3%
Control after	3	50%	3	50%

Based on the bivariate analysis table the effect of massage therapy in cancer patients on quality of life before and after massage therapy. Data obtained from respondents who experienced a good quality of life before the therapeutic massage were 2 (33.3%) of respondents and after therapeutic massage were 6 (100%) respondents, and respondents who had sufficient quality of life before the therapeutic massage were 4 (66.6 %) of respondents and after massage therapy the patient's quality of life was good as many as 6 (100%) people. Whereas the control group respondents previously had a good quality of life as much as 1 (16.6%) of respondents and the quality of life was adequate 2 (33.3%) of respondents, and after receiving chemotherapy and treatment, the quality of life was sufficient 3 (50%) of respondents and quality of life good 3 (50%) of respondents.

## Discussion

In general, this study aims to determine the effect of massage therapy on the quality of life of cancer patients at IZI open houses. The characteristics of the respondents obtained from the research of respondents who performed therapeutic massage were more at the age > 35 years 66.6% more than respondents aged 20-35 years as much as 33.3%. Respondents who did not receive massage therapy were 50% aged > 35 years and 50% were aged 20-35 years. The results of research conducted stated that in patients with cervical cancer, increasing age will affect the quality of life of the patient, especially the patient's physical abilities. The older the patient, the physical ability of the patient will decrease. In this study, age > 35 years and the quality of life of cancer patients were good after being given therapeutic massage.

The education of the respondents who had massage therapy was mostly high school education as much as 50%, junior high school education 16.6% and education not in school or elementary school as much as 33.3%. Respondents who did not get therapeutic massage were mostly those who had high school education as much as 66.6%, 33.3% junior high school education and 0% non-school or elementary education. The results of research that has been conducted by Nofitri [8]. The level of a person's education will have an effect in responding to something that comes from outside. Highly educated people will generally give a more rational response to information and think further about the benefits derived from these ideas. The level of education will also affect the individual's ability to control his life. Individuals are motivated to maintain better health with a positive attitude in life by doing routine health checks.

Respondents who do massage therapy are housewives as much as 83.3% and laborers as much as 16.6%. Respondents who did not receive massage therapy were mostly housewives as much as 66.6% and laborers as much as 33.3%. The results of research conducted by Hidayati (2001) [9]

state that work will affect a person's economic level. A socioeconomic level that is too low will affect individuals to pay less attention to the messages conveyed because they are more concerned about other, more urgent needs, women who are unskilled workers, such as laborers and low socioeconomic farmers have a 4 times higher risk compared to working women light or workers in middle and upper socioeconomic offices. In addition, the low level of a person's activity can affect the decline in health both physically and psychologically.

Several factors cause a decrease in the quality of life, namely, old age with low levels of education, lack of work, low income resulting in a lack of knowledge about managing disease and a lack of awareness of risk factors [10]. One of the efforts to improve the quality of life of cancer survivors is by anticipating physical and psychological symptoms. Quality of life is an important goal in cancer treatment and concerns about physical, psychological, body image disorders, and distressing symptoms need to be anticipated to improve the quality of life of cancer patients [5].

The cancer stage of the respondents who had massage was mostly at stage 3 there were 66.6% and stage 4 there were 33.3%. Respondents who did not do massage therapy were mostly stage 2, there were 66.6% and stage 3 there were 33.3%. All respondents who received massage or not received 3-4 weeks of therapy and the same came from the Javanese tribe.

The effect of massage therapy on cancer patients before doing massage therapy has a good quality of life as much as 2 (33.3%) and those who have a sufficient quality of life are 4 (66.6%) and after massage therapy has a good quality of life as much as 6 (100%) and adequate quality of life as much as 6 (100%). From the results of the study, it appears that massage therapy affects the quality of life of cancer patients. Therapeutic massage has positive benefits on bodily functions, which are related to physical problems, which means a reduction in problems with pain and wounds, nausea caused by disease symptoms, and side effects of chemotherapy, including peripheral neurotoxicity including sensory and motor, accompanied by pain, nausea and vomiting, decreased appetite, and weight loss, mucosal ulceration, and stomatitis. These changes are due to massage therapy reducing pain in the muscles, increasing relaxation, lowering heart rate and blood pressure, reducing depression, and improving sleep quality. as well as decreased pain, increased relaxation was associated with increased production of endorphins (natural painkillers) [11], and improved circulating blood flow [12].

## **Conclusion**

The results of the research that have been carried out show that most of the cancer patients at IZI open houses have an age of > 35 years, with an average high school education level, for the work history of most housewives, the cancer stage of the patient is mostly at stage 3, All respondents both those who do massage or not get 3-4 weeks of therapy and both come from the Javanese tribe.

The results showed that there was an effect of massage therapy in cancer patients on the quality of life of patients before and after therapeutic massage. The average of respondents before the therapeutic massage was that the quality of life was good as much as 2 after the therapeutic massage became a good quality of life 6 and the quality of life was sufficient before the massage therapy quality of life was enough for 4 after the therapeutic massage was done to be a good quality of life 6. The results showed that massage therapy affects the quality of life in cancer patients.

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## Conflict of interests

The authors declare that there are no competing interests.

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