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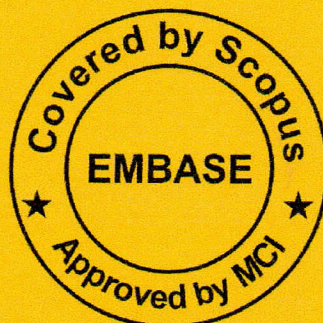
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75.	Xilem <i>Pinus merkusii</i> as Martapura River Water Biofilter	392
	<i>Ratih Dewi Dwiyanti, Leka Lutpiatina</i>	
76.	Factors Influencing Health Conservation of Middle-aged Men in Korea	398
	<i>Hee Kyung Kim</i>	
77.	Micro Oxidation Sterilization by Non-Thermal Plasma Technology	405
	<i>Jamal Hussaini, Siti Nur Hidayah Bt Muhammad, Noor Masyitah Jumahat, Navindra Kumari Palanisamy, Farzana Y, Najnin A, Nazmul MHM</i>	
78.	Practical and Simple Method in Measurement of Forearm Muscle Fatigue in Computer Operator	409
	<i>Hendrik, Yonathan Ramba, Arpandjam'an, M. Nurdin T., Gaurav Kapoor, Heru Santoso Wahito Nugroho</i>	
79.	Knowledge of Antenatal Mothers Admitted in King Abdul-Aziz Medical City (KAMC), Riyadh Regarding Therapeutic Benefits of Post-Natal Exercises	413
	<i>Jobby George, Meshal Ibrahim A Alnajfan, Mufleh Saeed H Alshahrani, Rakan Khaled M Alsuqali, Zamil Abdullah Z Alsubaie</i>	
80.	The Effect of Physical Activity (Endurance and Strength) and Sleep Management on BMI and Body Fat Children Overweight in Makassar City	417
	<i>Jamil Anshory, Hardinsyah, Ikeu Tanziha, Adam Mappaompo, Nur Miftahul Jhanna Nasrah</i>	
81.	Occupational Health and Safety Risk Assessment in Chrome Production	423
	<i>Laura Sakebayeva, Gulsim Karashova, Galya Kuspangaliyeva, Kulyan Shayakhmetova, Dina Yegizbayeva, Asem Ktabaliyeva, Ainur Zinaliyeva</i>	
82.	Food Stalls Ownership and Its Contribution on Body Mass Index and the Risk of Cardiovascular Disease in Cooker Profession	429
	<i>Novita Medyati, Ridwan Amiruddin, Syamsiar Russeng, Stang Abdul Rahman</i>	
83.	General Knowledge and Misconceptions about HIV/AIDS among the University Students in Malaysia	435
	<i>Nazmul MHM, Farzana Y, Deepthi S, Fazlul MKK, Najnin A, Srikumar C</i>	
84.	Supportive Group Therapy as a Prediction of Psychological Adaptation of Breast Cancer Patients Undergoing Chemotherapy	441
	<i>Awatiful Azza, Cipto Susilo, Ferry Efendi</i>	
85.	The Effectiveness of "Neherta" Model as Primary Prevention of Sexual Abuse against Primary School Children in West Sumatera Indonesia 2017	446
	<i>Yonrizal Nurdin Meri Neherta, Dilgu Meri</i>	
86.	Impact of Strategic Information System on Quality of Public Healthcare Services	453
	<i>Hamad Karem Hadrawi</i>	
87.	The Analysis of Risk Factors Associated with Nutritional Status of Toddler in Posyandu of Beringin Village, Alalak Sub-District, Barito Kuala District	459
	<i>Aris Rahman, Ardik Lahdimawan, Syamsul Arifin, Husaini, Rahayu Indriasari</i>	
88.	The Findings of Escherichia Coli in Drinking Water with Reverse Transcriptase Polymerase Chain Reaction Method at 16S RNA Gene	465
	<i>Alfina Baharuddin, Anwar Daud, Thahir Abdullah, Mochammad Hatta</i>	

Supportive Group Therapy as a Prediction of Psychological Adaptation of Breast Cancer Patients Undergoing Chemotherapy

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ABSTRACT

Background. Breast cancer is the main cause of death for women. One of the therapies for breast cancer is chemotherapy. Chemotherapy has physical and psychological side effects. Patients need to adapt in order to be able to follow the process of chemotherapy treatment, and supportive group therapy is one of the ways to improve adaptation ability of patients. The aim of this study was to analyze supportive group therapies in improving the psychological adaptation of breast cancer patients undergoing chemotherapy.

Method. This study uses pre-experimental one group pretest-posttest design. The sample consists of 35 respondents that were divided into 3 groups during the treatment. Pre-test and post-test were conducted to each group by using Likert scale. This study uses sampling technique of purposive sampling with inclusion criteria.

Results. Before supportive group therapy is conducted, the average score of the respondents are 35,85 meanwhile after the supportive group therapy is conducted the average score increases to 43,82. The statistical analysis by using paired t-test shows that $p\text{-value} .000 < 0,05$ and this demonstrates that the supportive group therapy can improve psychology adaptation of breast cancer patient who undergone chemotherapy.

Conclusions. Supportive group therapy can be an alternative to support the breast cancer patients to adapt and undergone chemotherapy.

Keywords: *Chemotherapy, Supportive group therapy, psychology adaptation*

INTRODUCTION

Cancer is one of the deadliest disease worldwide^{1,2}.

According to the data from International Agency For Research On Cancer (IARC) of the year of 2012, there were 4,1 million new cases of cancer with the mortality rate of 8,2 million^{1,3,4}. The data on mortality caused by cancer worldwide demonstrates that the most commonly diagnosed cancer type for men is lung cancer (30%). For women, the most commonly diagnosed cancer types

are cervical cancer while breast cancer (12,9%) is in the second position^{1,3,5}.

According to the study entitled Surveillance and Health Service Research from American

Cancer Society 2012, breast cancer is an oncology case that often occurs to women. There are approximately 1.7 million breast cancer patients throughout the world and 521,900 of them has passed away^{6,7}. Breast cancer contributes 25% of the total cases of cancer and it is responsible for 15% of female deaths due to cancer worldwide^{6,7}. According to the study from Cancer Epidemiology Biomarker, there are 1.7 million cases of breast cancer worldwide, 39% of the patients are from Asia, 29% in Europe, 15% in Amerika, 8% in Afrika, and 1.1 % in Australia. Based on such data, Asia is the

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continent with the highest percentage of breast cancer patients^{6,7}.

Cancer patient should get a treatment to reduce metastasis of cancer cell in order to prevent the cancer spread to other body parts which may cause death^{2,8,9}. Chemotherapy is very important in cancer treatment besides radiation, surgery, as well as the injection of cytotoxic and anticancer. These are the main treatments which required to eliminate the cancer cells from the body¹⁰. However, the use of anti-cancers often have a side effect which harming the patients¹⁰. The use of chemotherapy has various impacts, including physical and psychological impacts.

Side effects of chemotherapy arise because the substances are very strong and such substances do not only kill cancer cells, but also attack healthy cells, especially cells that divide rapidly, such as hair cells, spinal cord, skin, mouth and bones and digestive tract^{9,11}. In addition, the psychological impact that arises out from chemotherapy makes the majority of cancer patients worry, anxious, and fear of facing the threat of death and pain during the chemotherapy treatment^{5,11}. This psychological response varies from person to person, it really depends on the stage of the cancer, the type of treatment being carried out and the characteristics of each patient^{7,12}. The psychological impacts which often experienced by breast cancer patients undergoing chemotherapy are the feeling of helplessness, anxiety, shame, decreased self-esteem, stress, and anger^{13,14}. Efforts should be made to improve coping mechanisms for cancer patients so that the result of the chemotherapy will be more optimum. The study conducted by Spahni, Bennett & Perrig, 2016 suggests that a person's adaptability is strongly influenced by the maturity and maturity of a person's age¹⁵⁻¹⁷. Psychological adaptation of patients with chemotherapy requires support from all parties, both from family, friends, and healthcare providers^{13,16,18}. This is important so that during the chemotherapy the patient will be able to receive all the side effects of the treatment^{15,19}. According to Clessen, et.al 2008, psychological changes in cancer patients can be adapted to supportive group therapy^{5,20}. Another study conducted by Yavusyen et al. (2012) suggests that support groups therapy can improve the life quality of breast cancer patients^{5,21,22}.

Material and methods

Design

This study uses pre-experimental with pre-post test which designed to examine whether supportive group therapy can improve the psychological adaptation ability of patient who undergoing chemotherapy^{23,24}.

Sample

This study involves 35 breast cancer patients as the respondents who undergo chemotherapy at the chemotherapy center at Jember Hospital, Indonesia. The sample is divided into 3 groups, each group consists of 12 or 11 people. Such division is intended to make the interaction among the patients more effective^{25,26}. The characteristic of sample in this study is a patient with breast cancer level II or III, who has undergone chemotherapy for more than 3 times, cooperative and able to communicate verbally, and agree to be a respondent. While exclusion criteria that used to eliminate confounding variable is the breast cancer patient level II and III who has complications due to cancer. This study used *purposive sampling*, which is a self-determined sampling technique which adjusted with the specified criteria^{23,26}.

Measurement

The data collection procedures from 35 samples are divided into small groups with each group member as many as 11-12 people. Each group is accompanied by cancer therapists and volunteers. Interventions are carried out in 1 meeting by combining 4 sessions in one meeting. Data collection on psychological adaptation was conducted twice, namely before supportive group therapy and after intervention. The therapy is conducted in a quiet room, for 90 minutes. Assessment of the psychological adaptation of respondents includes cognitive, affective and psychomotor assessment using a Likert scale²⁶.

Data analysis

In order to analyse the different group by using paired sample t-test, with value of $\alpha < 0,05$ ^{25,26}. Previously, data normality tests were conducted on the two groups²⁶.

RESULTS

Table 1. Respondent Demographic Data Frequency Distribution

Demographic Data	f	(%)
Age		
<40 years	1	2,9%
40 – 50 years	16	48,6%
>50 years	18	51,4%
Education Degree		
Elementary	21	60,0%
Junior High	6	17,1%
Senior High	7	20,0%
Bachelor Degree	1	2,9%
Marital Status		
Single	1	2,9%
Married	27	77,1%
Widow	7	20,0%
Religion		
Islam	35	100%
Occupation		
Civil Servant	3	8,6%
Employee	4	11,4%
Entrepreneur	10	28,6%
Farmer	4	11,4%
Housewife	14	40,0%
The frequency of chemotherapy		
5 times	9	25,7%
6 times	8	22,9%
7 times	8	22,9%
8 times	5	14,3%
9 times	4	11,4%
10 times	1	2,9%
Breast cancer level		
3	20	57,1%
2	15	42,9%

Based on the analysis of respondents demographic data, most respondents (18 respondents) are >50 years old with the percentage of 51,4%. While the highest chemotherapy frequency is 5 times with the total of 9 respondents (25,7%). Most of the respondents are in level 3 of breast cancer, with the total of 20 respondents (57,1%) (Table 1).

Table 2 Frequency Distribution of Respondents Based on the status of psychological adaptation of breast cancer patients before and after supportive group therapy

Value	Before Supportive Group Therapy	After Supportive Group Therapy
Minimum	29	34
Maximum	42	52
Mean	35.85	43.82
Median	36.00	44.00
Std. Deviation	2,475	4,768

Based on the table 2, to analyse paired t-test, normality data test is conducted by using Shapiro wilk test with significance of 0.05²⁷ and the result shows that the score for pre-test and post test are > 0.05, thus, it can be concluded that the variables are distributed normally^{26,27}.

Table 3 Analysis of the effect of supportive group therapy on psychological adaptation of cancer patients undergoing chemotherapy.

Psycho-logical adaptation	N	Min	Max	Mean	Median	Std. Dev-iation	p-value
Pre-test	35	29	42	35.85	36.00	2,475	0.000
Pos-test	35	34	52	43.82	44.00	4,768	

The results of the analysis using paired t-test suggest that P value is 0.000 < 0.05 and thus, supportive group therapy can improve the adaptation of patients undergoing chemotherapy (Table 3).

DISCUSSION

Adaptation ability of a person is also depending on the age, the more mature, the more mature the meaning of life will be. So they will be wiser in responding to any stressors²⁸. The results of this study indicate that most respondents are in middle adulthood. According to Hurlock (2009), middle adulthood is a transition period and a period of readjustment with behavioral patterns that have been carried out in early adulthood with physical and psychological changes occurring in middle

age^{17,29}. This result corresponds to a study conducted by Khariyatul (2017) which shows some factors that affecting adaptation ability, which is the age of the respondent who are more than 50 years old, and thus age greatly affects the adaptability of breast cancer patients undergoing chemotherapy^{28,30}.

Another factor that affects the adaptation ability is marital status. According to Pamungkas (2011), the participation of families and those around the patient to provide life support for breast cancer patient will be very significant. The family must take care so that the patient does not experience stress and depression of the disease they are suffering from. The research conducted by Nurhidayati, T. & Rahayu, D. A. (2017) shows that the support of partners are obtained in the form of instrumental, appreciation, emotional support and information⁵.

The results above show that average score of psychological adaptation of respondents after (post-test) supportive group therapy is conducted increase to 43.82, with the minimum score of 34 and the maximum score of 52 and thus, it can be qualified as 'adaptive' and the standard deviation is 4,768. This result demonstrates that the breast cancer patients undergoing chemotherapy are more adaptive in addressing the disease. This result corresponds to the study conducted by Nurcahyani, Dewi, & Randhianto (2016) which focuses on the effect of group supportive therapy on anxiety. Adaptability can also be influenced by one's religion and beliefs⁵. At the age of 50-60 years the level of religiosity is higher because good religiosity can affect a person's acceptance of his condition so that patients will be more adaptive. The higher the religiosity the lower the depression level, and vice versa³¹.

The result from the t-test analysis on 35 respondents shows that the p score is .000 < 0.05, thus H1 is accepted, which demonstrates that there is a correlation between supportive group therapy and the psychological adaptation of breast cancer patients undergoing chemotherapy. Supportive group therapy is a therapy that is carried out using peer groups who have relatively similar problems by sharing information about the problems experienced as well as solutions that need to be taken while the process of mutual learning and strengthening is very effective if done so that patients can adapt to their current situation^{5,11,28,32}. According to the results of Yafuzsen's research, et al, (2015) supportive

therapy groups has an influence on the changes in self-esteem between the intervention group and the control group³².

CONCLUSION

Supportive group therapy can be an alternative for the healthcare providers to improve the psychology adaptation in order to support the healing process. This therapy can be conducted along with other therapies which performed by a professional healthcare provider.

Ethical Clearance: This study has passed the institutional review board from Faculty of Health Sciences, Universitas Muhammadiyah Jember.

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Conflict of Interest: None

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