

Experience of Fulfilling Nutritional Needs of Muslim Cervical Cancer Survivor: A Phenomenology Study

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Abstract--- *Cancer affects all aspects of the patient's life, both physically, psychologically and spiritually. Cancer does not always mean illness and suffering for life. Patients who have recovered from cancer convey the opposite, namely health, wellbeing, and happiness after recovering from cancer. Complementary and alternative medicine (diet, herbs, supplements, therapies that involve the body, mind, and emotions) have an important role in helping people with cancer recover and prolong their lives. There are little data about how to meet the nutritional needs of cervical cancer patients, so this needs to be explored. Evidence-based information is needed by cancer patients to be able to live a quality life to the maximum and for a long time. The research aims to explore the experience of meeting the nutritional needs of cervical cancer survivors. The design of this study is qualitative with a hermeneutic phenomenology approach. An in-depth interview was conducted with five participants who were selected through purposive sampling. Data were analyzed using content analysis. Results: The results of this study obtained six themes, including (1) eating vegetables (2) eating fruit (3) avoiding MSG (4) avoiding foods containing preservatives (5) drinking a liquid that contains antioxidants, and (6) not consuming burnt foods. This study concludes that cancer survivors have positive and negative experiences in fulfilling nutritional needs while undergoing treatment for cervical cancer until healed. They prefer to consume healthy food without MSG and a lot of antioxidants.*

Keywords--- *Survivor; Cervical Cancer; Nutrition*

I. INTRODUCTION

Cancer is a leading cause of morbidity and mortality worldwide. [1] Nationally, the prevalence of cancer in 2016 accounted for 17.8 million people. Patients with cervical cancer in Central Java in 2013 were 19,734 patients. [2] In Semarang City in 2015 there were 310 people and in 2016 it increased to 357 people. In RSUP Dr. Kariadi Semarang in 2014, there were 141 patients with cervical cancer, increasing to 276 patients in 2015 [3].

Survivor is a term for individuals who have completed medical treatment, during the re-entry period, early survivors, and long-term survivors, including their psychological and physical health. Early detection, improved screening technology, more effective treatments, and better psychosocial care during and after cancer treatment are of great benefit, resulting in a better prognosis with increased opportunities for longer survival rates for individuals with a cancer diagnosis [4]. Statistics on prospects for certain types of cancer are often given at the 5-year survival rate.

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The 5-year survival rate is the percentage of people who lived at least five years after being diagnosed with cancer. Based on the type of cancer in patients, survival figures are : 32% breast cancer, 5% prostate cancer, 6% colon cancer, 7% gynecological cancer, and 14% blood cancer [5]. Based on research, many cervical cancer patients can survive for one year. The probability of the one-year survival rate for cervical cancer patients is still high [6]. This shows the number of cancer survivors who can survive up to five years is still rare.

In general, humans always want to be able to live healthily. Health is a very valuable thing and is the most important aspect of human life. Humans adopt many different ways to stay healthy, starting from consuming nutritious food, healthy lifestyles, and others.[7]

In patients who can survive, there is no in-depth data on how to experience the fulfillment of cervical cancer survivor nutrition, thus, it needs to be explored. With the results of this study, it is expected that cancer patients who are undergoing treatment will get supportive research results, so they can undergo maximum quality treatment and can live long-term lives. The purpose of this study was to explore the experience of meeting the nutritional needs of cervical cancer patient survivors.

II. METHODS

The design of this study is qualitative research with a hermeneutic phenomenology approach [8]. The process of descriptive phenomenology methodology includes four steps, namely bracketing, intuiting, analyzing, and describing. [9].

The population was cervical cancer survivors at the largest referral hospital in Central Java Province of Indonesia. The survivor had been declared in remission by the medical doctor, underwent pap smear control 1-2 times in one year, and survived for 5-10 years. As many as six cervical cancer survivors were tracked, five of them were willing to be respondents and one patient was not willing because it was not allowed by his daughter.

The sampling technique used was purposive sampling [8]. The participant inclusion criteria included: 1) women aged ≥ 20 years; 2) married or not married; 3) cancer survivor for five years; 4) has no cognitive impairment; 5) has been cured; 6) no complications, 7) willing and agreeing to be a participant in the study.

Before interview, the researcher approached the prospective participants to foster a relationship of mutual trust. Then, the researcher explained the time contract with the participants regarding the interview that would take place. If prospective participants agreed, the researcher explained the purpose, benefits, and procedures of the study.

The researcher asked participants to fill out informed consent as evidence that the prospective participant was willing, voluntarily and without coercion from any party, to participate in this study. Data were collected by semi-structured interviews and the results of interviews were written and documented in the form of transcripts. The interviewer is a researcher himself, has a job as a teacher, is female sex, has some experience treating patients in the oncology ward and has conducted surveys of several cancer survivors.

Interview results were analyzed using content analysis. The content analysis consists of transcribing (making transcripts of nurse and patient conversations), determining meaning units to look for relationships between words, sentences or paragraphs and, finally, doing data abstraction to form several themes. Data processing techniques were qualitative analysis using inductive thinking processes. This means testing hypotheses starting from the data collected and then using inductive thinking in drawing conclusions. The general conclusions[10]

The data analysis process carried out in this study began by listening to and writing down the results of interviews and field notes and then documenting these in the form of transcripts. The transcripts were examined again for accuracy by playing back the recorded interview and matching the transcript until the researcher was sure that all information

submitted by the participant had been included in the transcript, then in looking for keywords - these were then analyzed into categories. From the predetermined category, then the research theme was taken, which is the core of the cancer survivor coping experience in cervical cancer patients [11]. The theme in this study leads to the emergence of a narrative story about cancer survivor coping experiences in cervical cancer patients.

The process of data analysis in this study was carried out through the steps of data analysis [8], [9] including 1) The researcher changed the participant's name with a specific code on each verbatim and allocated an interview date for each transcript. The researcher began to listen to the participant's verbal description And conducted a documentation process of data retrieval by making verbatim transcripts of in-depth interviews combined with field notes. Then, transcripts were stored in files and printed out to facilitate the analysis step. Researchers collected interview transcripts in the form of files and printouts stored on a flash disk; 2) The researchers re-read all participants' interview transcripts in order to understand the data well without using personal assumptions and to determine significant statements with the phenomenon under study; 3) The researchers looked back at the participant transcripts and selected and analyzed the statements about how the participant experienced a variety of significant objectives of the study and then made this as a keyword; 4) Researchers combined several key words having the same meaning into the coding and categorized them. Some of the same categories were then grouped together to form a theme that fits the purpose of the study; 5) The researchers wrote the research results in the form of a deep and complete narrative description; 6) The researchers validated the narrative description to five participants and families by returning the narrative results to the participants; 7) A combined description (interpretation of data) was written which combined textural and structural descriptions or new data that appeared during validation into the narrative descriptions. This is called the "essence" (essence) of the participants' experience and represents a core aspect of the phenomenological study that the researcher writes through the interpretation of the data.

Data validity can be interpreted that each research data meets the correct value and can be applied in all communities with the same criteria as the research [12]. Data validity (trustworthiness) can be achieved through several inspection techniques based on certain criteria, including the degree of trust (credibility), transferability, dependability, and confirmability [13].

In terms of credibility, the truth or trust of the research results reflects the real reality. This means that the participation of researchers is not only done in a short time, but requires several meetings to foster trust from participants to researchers [12]. Researchers use triangulation and member checks to test the credibility of the results of research that has been conducted. After the interview process, the researcher makes the transcript of the results of the interview and brings the transcript to the participant and asks the participant for approval as to whether what the researcher has documented is a true record of the interview, and whether they agree on the interview transcript and the themes raised. If there are additional data, the researcher will add these to the transcript sheet. If there are data that are not participant data, the researcher asks which data were chosen. Researchers carry out communication with participants and families on average 2-4 times.

The principle of transferability is a way of building intelligence to assess the validity of qualitative research data [12]. For transferability in this study, the researcher described in detail the findings obtained in the themes then gave an explanation of the results of interviews and field notes and discussed the results of research using journals and literature according to the research topic.

Dependency is a principle that prioritizes the suitability of the research methods used in answering the objectives of the study [12]. Achievement of dependability in this research is that the researcher conducted an inquiry audit by asking an

external reviewer, in this case the research supervisor, and someone who is an expert in their field to control the activities during the research process, so that consistency of the results of the study can be seen.

Confirmation can be interpreted that an object is valued objectively if it gets agreement from other parties for views, opinions, and findings [13]. Researchers used confirmability at the next meeting with participants and families to confirm the interim themes made in structured descriptions so as to increase the accuracy of research data.

III. RESULTS

In this study, five cervical cancer survivors were found in Central Java Province (one participant residing in Demak District, two participants residing in Jepara City, and two participants residing in Kendal District). Researchers explored what participants felt, experienced, and how it related to the experience of fulfilling nutrients during cervical cancer until they were cured.

Participant 1 had undergone cancer treatment with chemotherapy, radiation, loading, and consuming herbs. Participant 1 is currently waiting for the control schedule and pap smear scheduled for September. Participant 1, 49, had two daughters. History of cancer diagnosis stage 3B cancer, remission in 2012, last elementary education, and married since the age of 16 years and can communicate well.

Participant 2 was 55 years old, had experience and underwent cancer treatments, namely radiation, loading, and chemotherapy. Currently, participant 2 is waiting for the control schedule and pap smear. Participant 2 married at the age of 14 and had six sons and daughters. Participant 2 was diagnosed with stage 3B cancer, declared in remission in 2008, had elementary education and was able to communicate well.

Participant 3, 67 years old, looked healthy, was diagnosed with stage 3B cervical cancer and declared in remission in 2008 after having undergoing radiation, bistral and loading. Participant 3 is currently waiting for a control schedule and pap smear in December. His last education was elementary school, married for 11 years old and had five sons and daughters.

Participant 4 was 63 years old, had been married 14 years, and had six sons and daughters. Participant 4 was diagnosed with stage 2 B cervical cancer and was declared in remission in 2012. Treatment of cancer that had been undertaken was radiation, loading, and chemotherapy. Presently, the patient is waiting for a control schedule and pap smear.

Participant 5 was 62 years old, married 22 years old and had four sons and daughters. He was diagnosed with stage 3B cervical cancer, remission in 2004 and underwent treatment comprising radiation, loading, and chemotherapy. Last education was elementary school and could communicate well. Currently, he is waiting for the control schedule and pap smear.

Some statements of participants and families related to healthy living behavior in cancer survivor participants are "eating healthy food", including the following themes:

a) Eat healthy food: fruit

The interview results show that cervical cancer survivors consume healthy food such as fruit every day as follows:

"The fruits are apples, pears, yam, each one juice is drunk every day plus three red seeds or green grapes, one banana every day, if there isn't papaya ..." (P1)

"... Yes, eating apples or bananas, star fruit, guava ..." (P2)

"Yes, eating bananas that are not bought, in the village there are many ... if there is no, yes eat oranges, apples or papaya ... if there is no fruit I eat tomatoes which is important to eat fruit ..." (P3)

"... eat fruit or tomatoes potluck fruit what is important, the important thing is fruit every day two seeds" (P4)

"My fruit is to eat melon joy, or drink guava juice at least one glass because it has a tree ..." (P5)

This data are corroborated by participants' family statements which convey:

"... mother eats water spinach, if the fruit is apples, pears, yam juices and eat bananas or papaya potluck if this. ... said the mother to drink water that is micro-cluster and antioxidant body fresher " (T1, patient's son)

"... yes, miss grandma eats fruit every day but not one kind ... usually, there are bananas, apples, papayas, tomatoes, carrots every day, oranges ... if vegetables are usually green, for example, papaya leaves, cassava leaves that have their own garden, mustard greens" (T3, the patient's daughter)

"... vegetables that are usually eaten are papaya leaves, cassava leaves, mustard greens, green, correct mother, you also eat fruit every day, can tomatoes, oranges, potluck vegetables important to eat fruit cultivated" (T4, the patient's daughter)

"... the fruit I like to eat melons, love it even though every day is also not boring, if guava because it has its own garden, don't pick it, usually mothers pick cashew. If vegetables are often eaten kale, mustard greens spinach ya ya spinach, a little vegetable rice is a lot" (T5, husband)

b) Eat healthy foods: vegetables

This can be seen from the following statement:

"Spinach greens, mustard greens, broccoli, kale vegetables often a day 3 times a plateful portion ..." (P1)

"Yes, ma'am I eat vegetables ... spinach, kale or mustard greens ..." (P2)

"My vegetables are often papaya leaves, katuk leaves, cassava leaves if there are or mustard greens ... vegetables 3 times a day serving small plates" (P3)

"... Papaya leaves or cassava leaves, mustard greens must eat vegetables a day, once I cook them myself..." (P4)

"... If the potluck vegetables are important vegetables, example: spinach, water spinach or mustard greens every day, three times a day with a little rice ..." (P5)

c) Eat foods that do not contain MSG

"... Now don't eat food with MSG" (P1)

"... MSG has not been until now ..." (P2)

"Not the same miss, if before eating I ate carelessly if now it's limited ... MSG no, just cook it with salt sugar" (P3)

"... before, after from Semarang, I didn't eat the MSG" (P4)

This statement was strengthened by the participants' families who said that:

"... the flavoring is also not good, my mother has learned his lesson" (T4, the patient's daughter)

d) Eat foods that do not contain preservatives

This is consistent with the following participant's statement:

"Yes, miss, in the past, if you eat preservatives sometimes you don't" (P1)

"... after getting sick, such as wanting to buy meatballs, not necessarily once a month, ... don't dare to have preservatives" (P2)

"... preservatives, dyes, sweeteners are not allowed, I obey ..." (P3)

This data is supported by the following participant family statement:

"We don't give food that has preservatives to grandma, for example, instant noodles. Suppose grandma drinks water only given salt sugar, fasting we drink syrup grandmother does not drink, because there are preservatives ". (T3, the patient's daughter)

e) Drink water that contains antioxidants and microclusters

One participant said:

"... Drinking antioxidant water, sis, the body is refreshed" (P1)

f) Eat no grilled/roasted foods

Patients with cancer are advised not to consume foods that are burned in the processing, supporting statements in this study are:

"Yes, grilled fish do not eat, grilled fish I do not eat" (P3)

"... do not eat food that is burned, roasted cassava must not ... if fried chicken is allowed, but if a chicken is burned it should not" (P4)

In support of the above, the statements of several participating families are as follows:

"... the food that was burned had not eaten at all even though it was roasted cassava, grandma was afraid because the doctor said not to eat food that was burned" (T3, the patient's daughter)

".. for example, which is put in the embers of a fire, chicken, cassava, bro, don't eat mbak" (T4, the patient's daughter)

IV. DISCUSSION

Cancer patients need good nutrition because it plays an important role in the healing process. Nutritional deficiencies can delay overall patient recovery from cancer treatment and can cause complications. Cancer patients with exposure to anti-cancer therapy with inadequate nutrition can cause malnutrition. According to the American Institute for Cancer Research and the World Cancer Research Fund, it is estimated that 30-50% of cancer can be prevented by a good healthy diet, physical activity and good maintenance of ideal body weight [14].

One of the topics of education for cancer patients in terms of nutrition is education on the application of a healthy diet, one of which is the consumption of many fruit [15]. The American Institute for Cancer Research (AICR) recommends a low-fat, high-consumption diet of fruits, vegetables, and whole-grain products, which have enough macronutrients, vitamins, and minerals to maintain good health for cancer survivors [16]. The eating habits of cancer patients are not only influenced by the role of companion support, but are also by the characteristics of cancer patients. Cancer patients should increase their intake, especially the intake of fruits, vegetables, and milk to achieve a good diet [17].

The information and advice that nurses convey when providing education to cancer patients in terms of nutrition are how to have ideal body weight and implement a healthy diet by eating vegetables [15]. Daily multivitamin supplements by Dietary References Intake (DRI) can be used safely as part of healthy nutrition, which includes 5-10 daily servings of fruits and vegetables [16]. Vitamin C functions as a powerful reducing agent (antioxidant) in hydroxylation reactions that can reduce compounds such as molecular oxygen and nitrates. It also inhibits malignant transformation and reduces chromosome damage in cells. Example: the pigment found in tomatoes, lycopene, has strong antioxidants. The American Cancer Research Association describes various effects of lycopene, one of which includes reducing tumor size [18].

Cancer patients have different nutritional needs and need to follow the recommended healthy diet, which includes: many fruits, vegetables, and whole grains (bread and cereals), meat and dairy products may be consumed in small amounts as can fat, sugar, and salt. Patients with cancer should eat regularly during treatment to maintain the strength to be able to deal with the side effects of treatment. Patients suffering from cancer need extra protein and calories. Sometimes in the diet of cancer patients there may be need to include milk, cheese, and eggs [19].

Proper nutrition is very important for health and the immune system. Eating the right foods before, during, and after treatment can help cancer patients feel better; the patient can maintain weight, the risk of infection is lower and the patient remains stronger and more energetic. A healthy diet includes the right amount of food and fluids that have all the essential nutrients (vitamins, minerals, protein, carbohydrates, fats, and water) and calories that are important during the healing period [14].

Cancer patients are encouraged to eat well, which means consuming a variety of foods to get the nutrients the body needs so that patients can fight cancer until healed. These nutrients include protein, fat, carbohydrates, water, vitamins and minerals [20].

In one study, Monosodium Glutamate (MSG) had an inhibitory or stimulating effect on the cell cycle. This reduction in mitotic cell division shows that food flavor enhancers are potentially dangerous. From the research results it has been found that the cytotoxicity due to (Monosodium Glutamate) MSG is very high and plays a role in inducing immune disorders and causing various chronic diseases. Monosodium Glutamate (MSG) is also very influential in long-term health such as hypertension, obesity, cancer, Alzheimer's, spermatogenesis, Parkinson's, and stroke [21]. According to other studies, it was concluded that the use of MSG as recommended by 5-15mg/kg BW is not harmful to health. The use of sodium benzoate preservatives in the long term can also cause disease, one of which is cancer [22].

According to Permenkes RI No: 722 / Menkes / Per / IX / 88 additives, or often referred to as food additives, are ingredients that are not normally used as food and are usually not typical ingredients of food, have little or have no nutritional value, and are intentionally added to in food making, processing, supplying, treating, storing, packaging, storing or transporting food to produce or are expected to produce (directly or indirectly) on effect in the unique nature of food. The maximum limit for the use of sodium benzoate for other foods as food additives is 1g/kg of ingredients following Permenkes RI No.722 / Menkes / Per / IX / 88 concerning food additives [23].

One of the survivors of stage 4 cancer survivors recovering from cancer believed that consuming boiled cassava without herbs every day serves to inhibit the growth of cancer cells, and in eating dates, drinking zam-zam water because it is rich in antioxidants and is alkaline, drinking honey sprinkled with cinnamon powder as an energy source and detox, and eating grapefruit, apple, melon, pomegranate or mango which are rich in antioxidants. In Australia and America, apricot seeds are used for cancer treatment without chemotherapy. From the results of research, apricot seeds contain vitamin B17. One Indonesian doctor who has cancer sought for information and obtained data that cassava contains vitamin B17. The doctor routinely consumed the cassava 10gr three times a day, and, after consuming for one month, was declared cured [23], [24].

Cancer is a disease caused by abnormal cell growth, where the cells grow quickly and are out of control, where the cell infiltrates and suppresses the cells of the surrounding organs. The cause of cancer is a combination of genetic and environmental factors, such as carcinogenic substances. Carcinogenic substances are obtained from food that can lead to oxidation reactions in cells. In this process, eccentric oxygen molecules can damage the genetic code of cells. Problems will arise when too many of the active oxygen molecules or free radicals are produced in the body. Over the past 20 years, changes in therapy and society have spurred developments in problem solving and evaluating the goals and the importance of medical therapy that can be given. Alkaline water is water that has smooth and strong properties and can carry out cleansing obtained from a unique combination of water characteristics. Ionized alkaline water can eliminate active oxygen and protect DNA from oxidative damage [25].

According to some research results, byproducts produced from the process of burning food, especially foods rich in fats and proteins, can endanger health. Cancer, diabetes, cataracts, premature aging, atherosclerosis and kidney failure are

the results of free radicals that are consumed in small and frequent quantities. Side effects on health appear after years and are accumulated [26]. From the results of other studies, as many as 381 respondents (99.5%) were at risk of developing cervical cancer due to consuming burnt food [27].

In this study, there are some limitations so that further research related to fulfilling the nutritional needs of cancer survivors is needed. The researchers have not examined in depth all the other basic needs of patients and how healthcare providers treat cervical cancer patients so that there are some who can recover from among the many patients who are not safe.

V. CONCLUSION

The results of this study indicate that the five people who survived cervical cancer adopted healthy living behaviors in the face of cervical cancer until declared cured, by eating healthy foods: fruits and vegetables, foods with no MSG, foods with no preservatives, drinking water containing antioxidants and microclusters and did not eat grilled/roasted food.

The limitation of the study can be used as a basis for further research development. In order to support the treatment of cervical cancer patients, nurses are expected to provide education and counseling related to fulfilling the nutritional needs of cervical cancer patients during treatment.

CONFLICT OF INTEREST

The authors declares there is no conflict of interest in this research.

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