

# QUALITATIVE STUDY ON COPING STRATEGIES OF PATIENTS WITH NASOPHARYNGEAL CANCER UNDERGOING CHEMOTHERAPY

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**Abstract.** Nasopharyngeal carcinoma is one of the most frequent types of cancer in Indonesia. Indonesia relatively has a high incidence of at least 5.7 per 100,000 in males and 1.9 per 100,000 in women compared to the global incidence rate of 1.9 per 100,000 in men and 0.8 per 100,000 in women. Most nasopharyngeal cancer patients experience malnutrition, cachexia, and psychological stress due to the side effects of chemotherapy and the condition of the disease. This qualitative study aimed to gain an in-depth understanding of the coping strategy of patients with nasopharyngeal cancer undergoing chemotherapy at Saiful Anwar Hospital, Malang City, East Java Province, Indonesia. A purposive sampling was used to recruit a total of 11 participants in this study. The interviews were digitally recorded, transcribed verbatim, and analyzed through thematic analysis. The results of this study showed six major themes for coping strategies as follows: (1) increasing spiritual endeavors, (2) getting family and social support, (3) adhering medical advice, (4) finding and receiving support from peers, (5) self-optimism, and (6) maintaining appetite. This study provides additional insight into patients' coping strategies with nasopharyngeal cancer. Understanding coping strategies can help health care providers manage comprehensively the disease and provide psychological and social support. In addition, support groups and social support for nasopharyngeal cancer patients are strongly needed from peers, caregivers and family in order to cope with anxiety and depression.

**Keywords:** nasopharyngeal cancer, patient, coping strategy

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## INTRODUCTION

One of Indonesia's most common cancers is nasopharyngeal cancer, which typically affects people in their productive years. Around 80,000 cases of nasopharyngeal cancer were reported worldwide in 2002, and approximately 50,000 people died as a result (Ministry of Health Indonesia, 2017). Nasopharyngeal cancer is the fourth most prevalent cancer in Indonesia, behind cervical cancer, breast cancer, and skin cancer, and it is the most common malignancy in the head and neck (Adham *et al*, 2012). Each year, 12,000 new cases of nasopharyngeal cancer are discovered, with an incidence rate of 6.2 per 100,000 people (Adham *et al*, 2012). Indonesia relatively has a high incidence at least 5.7 per 100,000 in males and 1.9 per 100,000 in women compared to global incidence rate of 1.9 per 100,000 in men and 0.8 per 100,000 in women (Mahdavifar *et al*, 2016). Most nasopharyngeal cancer patients experience malnutrition, cachexia, and psychological stress due to the side effects of chemotherapy and the condition of the disease.

Physical functioning, body image, eating, and socialization are all impacted by head and neck anatomy. Cancer survivors face a significant risk of psychological, physical, and emotional morbidity when these structures are compromised due to diagnosis and treatment (Crowder *et al*, 2021). Although recent research has found associations between physical, emotional, social, and functional quality of life outcomes, little is known about how the quality of life, needs for supportive care, and coping strategies for nasopharyngeal cancer survivors (He and Shan,

2005). According to Wahyuni *et al* (2015), coping strategies can improve psychological well-being and patient adherence to chemotherapy in cancer patients who experience anxiety and depression and reduce patient anxiety during chemotherapy. Patricia *et al* (2015), among cervical cancer patients in Zambia, discovered five cancer patients' coping strategies, namely, prayer, support from family, support from places of worship, support from medical professionals, and support from peers or survivors are all components of faith in God. It was also discovered that cancer patients who used optimism as a coping strategy had a positive effect that was directly correlated with their well-being. This was due to the fact that cancer patients who believed in optimism indicated that they had a strong will to recover. Cancer patients benefit from optimism, social support, and perseverance. Patients who have nasopharyngeal cancer have a challenging time accepting and coping with the disease. Patients can experience physical, psychological, and behavioral stress because of their problems, which can manifest as stress. To assist patients in overcoming and reducing the stress they experience, appropriate coping mechanisms are required. Using survivor experiences and descriptions, qualitative research offers an adaptable and exploratory method for examining complex phenomena.

Therefore, the objective of the current study was to explore the qualitative experience of coping strategies of nasopharyngeal cancer patients. The knowledge from this study can be used when informing nasopharyngeal patients of possible coping strategies. The subjects of quality of life, coping strategies, and future concerns were investigated.

## MATERIALS AND METHODS

### **Participants and recruitment**

The participants were nasopharyngeal cancer patients from the

Saiful Anwar Hospital, Malang, East Java Province, Indonesia and the data collection was conducted between December 2019 – February 2020. To find eligible survivors who met the inclusion criteria, purposive sampling was used. The inclusion criteria were outpatients diagnosed with nasopharyngeal cancer and undergoing chemotherapy. The participants were recruited at the oncology outpatient department in the Saiful Anwar Hospital.

The number of samples taken aligns with Glaser and Strauss's data saturation theory (Glaser and Strauss, 2017). According to the theory, researchers go through a process called data saturation in which they continue their research on relevant samples so that no new theory emerges from the existing data. The sampling process continued until "saturation," or the inclusion of new participants did not yield any additional information regarding the subject of the study. The saturation in this study was reached after 11 interviews.

### **Data collection**

The purpose of this qualitative study, which employs a phenomenological methodology, was to investigate the patient's coping mechanisms in relation to being diagnosed with nasopharyngeal cancer, receiving chemotherapy, and altering their eating habits. This demonstrates that phenomenological research is an approach to a person's perspectives, ways of thinking, and interpretations of his or her life experiences, especially in terms of their coping strategies. The interview also asked about participant's efforts to maintain life optimism, support from other patients, and their effort to keep their appetite since they are undergoing chemotherapy.

Open and closed questions are used in semi-structured interviews,

often accompanied by probes and why or how questions. The interviews consist of views on nasopharyngeal cancer, experiences on nasopharyngeal cancer and chemotherapy, and coping with nasopharyngeal cancer and chemotherapy. All researchers reviewed and double checked the interview guideline prior to data collection. The aim was to ensure that the interviews reflected local conditions. The interview guideline was pretested through pilot interviews with three nasopharyngeal cancer patients to ensure that it was understandable and useful in gathering the necessary information. After the interviews pretested, the in-depth interview guideline was revised with all researchers, the refined open-ended questions were used with prompts to help participants uncover their coping strategies. The interviews were conducted in Bahasa (Indonesia language) and began with an explanation of the study's purpose and assurance of the confidentiality of the interview data. In contrast to a standard survey, which only follows verbatim questions, dialogue can meander around topics and investigate completely unexpected issues. Face-to-face semi-structured interviews were conducted and in this study the interview took about 30-80 minutes to complete. An audio recorder was used to record in-depth interviews before the study.

## **Data analysis**

A qualitative method for identifying, analyzing, and reporting themes, thematic analysis approach described by Clarke *et al* (2015) was used to analyze the data. In order to provide a rich and comprehensive account of the events, thematic analysis was chosen. The second author who conducted the interviews first read the verbatim transcripts several times to reacquaint herself with the data. The first and third authors, both of whom had prior training in qualitative thematic content analysis, independently reviewed each transcript. Statements deemed to have a

relation with coping strategies were categorized and coded starting with line-by-line coding. After that, the researchers discussed about how to change and improve the codes until they produced a single list. All transcripts were coded by the second author, who then added codes as needed to the list of codes in Dedoose®, a web application for qualitative data analysis (<https://www.dedoose.com/>). The first author then coded each transcript to ensure their reliability. The discussion was used to resolve differences. When the coding had been concurred, the themes emerged. These themes were examined, honed, and given names. After that, a written description of each theme was given. Throughout the research, precautions were taken to maintain participant anonymity.

### **Ethical consideration**

The protocol adheres to the principles of the Declaration of Helsinki and was approved by the Saiful Anwar Hospital (Reference Number: 400/158/K.3/302/2019). Before data collection, all participants were informed of the study's objectives and procedures and given written consent.

## **RESULTS**

The demographic and characteristics of the study participants are presented in Table 1. There were 11 participants in the study, with 7 (63.8%) of them being male and 4 (36.4%) are female. Nearly all participants (10 or 90.9%) were older than 30 years. Almost half (5 or 45.5%) were in high school and majority (10 or 90.9%) had received their diagnosis  $\geq 2$  years when the data were collected in December 2019 - February 2020. Most of participants worked as government employees (4 or 36.3%), and ran their own business (4 or 36.3%).

The results of this study showed six major themes for coping strategies as follow: (1) increasing spiritual endeavors, (2) getting family and social support, (3) adhere to medical advice, (4) finding and receiving support from peers, (5) self-optimism, and (6) maintaining appetite

### Theme 1: Increasing spiritual endeavors

Spirituality, according to the study's participants, is crucial to their well-being. Spirituality was linked to coping and treatment, including the meaning and significance of their crisis-stricken lives. One participant's thoughts summarized as below:

Table 1  
Demographic and characteristic of participants (N = 11)

Participant characteristic	Frequency <i>n</i> (%)
<b>Gender</b>	
Male	7 (63.6)
Female	4 (36.4)
<b>Age</b>	
<30 years	1 (9.1)
30-40 years	2 (18.1)
40-50 years	5 (45.5)
>50 years	3 (27.3)
<b>Occupation</b>	
College student	1 (9.1)
Government employees	4 (36.4)
Merchant	4 (36.4)
Farmer	2 (18.1)

Table 1 (cont)

Participant characteristic	Frequency <i>n</i> (%)
Monthly income	
<IDR 2,500,000	2 (18.1)
IDR 2,500,000 – 5,000,000	6 (54.6)
>IDR 5,000,000	3 (27.3)
Time of diagnosis (prior to data collection in December 2019-February 2020)	
<2 years	1 (9.1)
≥2 years	10 (90.9)
Cancer stage	
I	0 (0.0)
II	2 (18.1)
III	7 (63.8)
IV	2 (18.1)

Nasopharyngeal cancer stages are based on Soepardi *et al* (2012). Stage I: The cancer is in the nasopharynx and may have started to grow into the nasal cavity or oropharynx; Stage II: The cancer has spread into the areas next to the nasopharynx (parapharyngeal space) and might have spread into the lymph nodes on one side of the neck or behind the throat on one or both sides; Stage III: The cancer has spread to nearby bones and air cavities (sinuses) and might also have spread to lymph nodes on one or both sides of the neck, or behind the throat; Stage IV: the cancer is advanced. the cancer has grown into the skull, cranial (skull) nerves, eye or nearby tissues, main salivary gland, or the lower part of the throat (IVA) or the cancer has spread to other parts of the body, such as the lungs (IVB).

IDR: Indonesian Rupiah

*"The diagnosis of cancer spread alters my perspective. I had to adjust and improve both my health and my spiritual belief during this disease crisis."* (Participant #3)

Participants did this in addition to bringing him closer to God, assisting him in finding peace during the healing process, fostering a sense of peace, and boosting his enthusiasm for life. Increasing spiritual effort is one of the behavioral efforts made to handle stressful situations.

*"I pray more and more...yes, I'm more solemn now."* (Participant #2)

*"Yes, it helps, it keeps me strong while undergoing this treatment."*  
(Participant #4)

The participants did not experience depression or blame God for being unfair due to their diagnosis. On the other hand, the key participants have the impression that God loves and cares about them, which motivates them to work even harder on their spiritual endeavors. This makes it easier for key participants to accept their circumstances and endure the situation patiently.

*"With this happening now, I believe God loves me. God offered me the chance to atone, since, in such a case that, for instance, I unexpectedly passed away, then I do not have the chance for atonement. God now still allow me to do more observance, which I may have neglected before."* (Participant #6)

## **Theme 2: Getting family and social support**

In general, support from the family is particularly important for a

person's psychology, especially in the sake of motivation of participants since family is the closest person to them and they have a strong emotional connection. The results from in-depth interviews showed that all participants received family support in various forms of behavior. Families that most often support participants are spouses (husband/wife), children and parents. One of the roles of the family in helping participants deal with their diagnosis and treatment is by accompanying participants during hospitalization or undergoing chemotherapy at the hospital. The family always accompanies the participant to the hospital because the participant is having a weak condition making it impossible to do it alone.

*"We are going together to the hospital, wherever I go, my wife always accompanies me I can't go alone either, I could fall later."* (Participant #2)

*"Yes, it's my wife who helps me, takes care of me, and accompanies me to hospital."* (Participant #7)

The family also gave encouragement, reminded them to always be patient and pray more, complied with the participants' requests, and provided food while at home. The family did these things to support the healing process and make it easier for the participant to accept his condition so they would not lose hope. Participants who actively receive support from their families tend to have a high effort or enthusiasm to recover and support their families because they have helped them.

*"Yes, especially from my wife, for example, when I complain, I am always reminded, be patient, continue to make it like juice and all that, this is continuous support, the point is not to let what happened yesterday happen again or happen again, you have to maintain your diet, rest a lot...so"* (Participant #4)

*"...my husband is patient...he always complies with my request, and even my son understands that I am sick now, they are taking care of me when I was in the hospital. All of my siblings also looked after me...so the support was very strong from the family."* (Participant #6)

In addition to the support provided by the family, some participants receive support from their social environment. The social environment of participants is people outside the family who have a professional relationship or not with participants. From the results of the research, the people who belong to the social environment of the participants are co-workers and neighbors at home. The form of support provided by the social environment is not much different from that provided by the family, such as providing encouragement and motivation and visiting participants during hospitalization.

*"There are neighbors who think I'm like their own child because his wife died yesterday. He sees me like I am his part of family and he encouraged me to stay strong, and it is motivating me."* (Participant #5)

### **Theme 3: Adhering medical advice**

Doctors, nurses and nutritionists at the outpatient department are the hospital's human resources who have the knowledge and skills to provide care to patients. The main source of participants in seeking healing is to adhere the advice of medical personnel. Most of the participants came to medical personnel with low medical knowledge so that the role of medical personnel was needed in providing information related to diagnosis and treatment recommendations that patients should take. By providing the right information, participants can understand what measures should be

taken and carry out them according to the recommendations given.

*“Initially the recommendation from the doctor is to do chemotherapy. I am scared of getting surgery.”* (Participant #1)

*“...the doctor gave me advice and motivation, and he also advise me that at least you should like this, for example, like that earlier, there were patients who just wanted to take chemo or radiotherapy but no chemo, the effect would be like this. Other than doctor, the nurses also give me support as well.”* (Participant #5)

From the results of the in-depth interviews, all participants admitted to undergoing routine chemotherapy treatment as a response to the doctor’s recommendations. It is said to be routine if the number of chemotherapies performed by the participant is appropriate with the amount of chemotherapy recommended by the doctor. This was done because the participants wanted to adhere the advice of medical personnel and hoped that they would recover.

*“Yes, automatically I agree with the doctor’s recommendation, if I want to do it myself, the doctor won’t give permission, right...so yes, I always follow the doctor’s advice.”* (Participant #6)

*“Yes, one thing, because you really want to recover, the doctor knows better than the patient, right?”* (Participant #3)

The medical personnel also provided food recommendations while the participants were at home. This was done by medical personnel so that participants could maintain food intake, keep their bodies fit during chemotherapy, and support their recovery. Meal recommendations were given to participants regarding restrictions on eating preservative foods, baked foods, and fried foods.

*"The doctor recommended me to eat boiled food, and do not eat fried food. Foods that contain preservatives are also not allowed."* (Participant #2)

*"Doctor forbid me to eat grilled food things like satay, and grilled chicken is not allowed."* (Participant #3)

*"Yes, he told me to reduce the consumption of grilled food; eating preserved food is also not allowed."* (Participant #7)

#### **Theme 4: Support from peers**

Several participants receiving support from peers by using their time at the hospital and try to engage other patients to chat or share about their experiences while undergoing treatment. They meet each other in hospital, and they provide support in the form of encouragement and motivation. Participants usually met peers while undergoing chemotherapy at the hospital. Due to time constraints and remote locations, participants only met their peers during treatment time.

*"Yes, we motivate each other, and he shared several tips with me: I rarely eat this because it is not good for our health, if you are on medication, don't eat it often. Don't do too much activity and rest more."* (Participant #5)

*"Yes, I meet several people who has the same condition like me. There is one from Batu, then there is the other from Trenggalek. Ah there is one more with Budi from Lumajang, if I'm not mistaken. I remember Budi, and when I met him, he would always tell me when you are going for chemotherapy, you have to do this and this, but if you do light is like this, like this" then I said, "Oh yes, sir," I also often get cheered on while telling stories when we meet each other."* (Participant #7)

When they meet each other, they felt inspired and more enthusiastic about undergoing their treatment. Participants also felt that they were not alone in facing their diagnosis, there were still other people who were struggling with the same diagnosis or worse.

*“Yes... Pak Haji is my inspiration, because Pak Haji is actually older than me and I feel he looks so healthy. He is alone when he goes to hospital, he went here in hospital by himself on a motorbike. I thought, even at this age I am still strong but I’m not that strong.” (Participant #4)*

*“Yes, it helps me with my enthusiasm. I think because we are both sick, so when I met someone else in the outpatient department I often say, “Sir, you have to eat, get well” or maybe I meet someone and he asked me, “Sir, I just finished chemotherapy, then what should I do next?” or “Yes, sir, me too. like this, like this”, and there are a lot of stories to tell, because they are the same like me and I have that experience before.” (Participant #7)*

### **Theme 5: Self optimism**

In dealing with their condition, all participants had positive thoughts or believed in themselves that they could overcome all the problems that arose from their diagnosis and that the treatment they underwent would yield better results later. In other words, participants have inner optimism to accept and face their diagnosis. Based on the results of the in-depth interviews, at the beginning, it was found that all participants had felt hopeless, which made the participants have negative thoughts about the condition of their diagnosis. The participant became afraid that he would never achieve healing. But when the participants

remembered their family members, especially their children, wife or husband, and their responsibilities towards their families, the participants became aware that they had to fight harder for their families.

*“I want to be enthusiastic about recovering because I do not want to see my wife’s and my children keep worried about me. If I don’t feel enthusiastic or I don’t believe in healing process, I believe it will make my condition even worse.”* (Participant #2)

*“The lowest point I have was despair from this disease, but at the same time, my motivation is that my son is still small. When I lay down, I couldn’t get up in the morning in my bed, I often saw from the door of my room seeing my children playing, and that is my motivation.”* (Participant #4)

The participants also have a desire to recover, think they are strong, and they do not think negatively about their condition. This mindset made the feelings of despair and fear that existed in the participants turn into the strength and confidence to keep fighting until they are healed so that they can survive until now.

*“Well, no matter how painful I am, I just want to feel that what happened to me now is my new life and I am ready for this.”* (Participant #3)

## **Theme 6: Maintaining appetite**

From the results of in-depth interviews, all participants underwent chemotherapy treatment felt the effects which reduced their appetite in the form of nausea and vomiting. The participants used numerous ways to maintain their appetite, the first of which was to apply the food recommendations given by medical personnel. Limiting and reducing

the consumption of preservatives and grilled foods was carried out by participants while undergoing chemotherapy treatment. Even though the food recommendations were a little difficult to implement in daily life, significantly limiting preservative foods, the participants still tried to comply with the food recommendations.

*“From the start, I was allowed to eat anything, but not allowed to eat grilled, salty foods, and foods with lots of flavorings.”* (Participant #4)

*“The doctor’s orders: Don’t drink ice, don’t drink beverages with preservatives, you can only drink mineral water, also gets rid of monosodium glutamate.”* (Participant #6)

Even though they continued to eat food as usual, participants also chose foods that could support their diagnosis, such as eating lots of vegetables and fruit, drinking lots of water, and eating foods with a soft consistency such as juice. Participants also ate more food in small portions but often. These things were done on the initiative of the participants themselves to facilitate the process of eating and to maintain their appetite during chemotherapy treatment.

*“Bread is my choice for snacking, well if not, I eat cassava. I also drink a lot of water.”* (Participant #1)

*“I am afraid that I will be getting thin because of the effect of chemotherapy. I am trying my best to eat more often, in small portion even though I feel pain.”* (Participant #7)

*“... when you’re on chemotherapy, you don’t eat well at all, the taste is already bad, that’s what makes my appetite disappear. But instead of eating rice I make vegetable juice and fruit juice frequently.”*  
(Participant #4)

According to participants, the effects felt during chemotherapy treatment were milder when compared to the effects during radiotherapy treatment. The participant felt that his mouth and neck were burning because of the wound, his mouth became dry, and he felt pain, making every food taste bland. The way participants maintained their appetite during radiation treatment was not much different from during chemotherapy, such as drinking a lot of water, and eating foods with a soft to solid consistency such as starch water, milk, porridge, and pudding gradually to maintain their appetite during radiation treatment.

## DISCUSSION

The findings demonstrate that the participants who took part in this study saw the acceptance of their circumstances as a crucial coping mechanism necessary for the fight against cancer. They can proceed with the future after accepting. They were thought to be able to deal with an incurable sickness by taking death as a part of the overall life experience rather than viewing it as the negative aspect of life.

Hope is essential for cancer patients to combat their illness at every stage of a patient's growth and development. The participants admitted that the prospect of surviving and having a normal life had strengthened their resolve to recover and effectively fight the illness. Acceptance helped individuals develop coping skills that boosted optimism in participants (Chinh *et al*, 2020). In dealing with an incurable disease, holding hope can be extremely helpful.

Positive thinking is one of the coping mechanisms to reduce stress, which aligns with the findings of a study that examined the coping mechanisms to deal with psychological issues connected to cancer (Youll and Meekosha, 2013). Most people thought that problem-focused coping

techniques such as cognitive acceptance and optimistic thinking were helpful (Anusasananun *et al*, 2013). In this study, the participants had a high value in attempting to be hopeful and having a positive outlook. Like this finding, cancer patients were more likely to develop positive thinking to enhance their perspectives of life (Trompetter *et al*, 2022). Optimism appears after participants experiences an event that changes his mindset. Optimism to recover helps the subject in overcoming the disease. So, it can be said that optimism in the participants is an effective coping strategy to help them adapt to the conditions of diagnosis and motivate them to recover.

In this study, the participants described self-perceived support resources, such as assistance from family, friends, and dependable healthcare providers, as crucial to giving them the self-assurance to deal with their difficult circumstances. These results confirm Larsson *et al* (2007) who conducted a study in head and neck cancer patients and discovered that social support is one of the most crucial coping mechanisms for those with emotional and psychological problems. Additionally, participants in this study believed that health practitioners played a beneficial role in fostering and upholding hope. The participants used self-perceived support systems as a coping mechanism to counteract the pressures brought on by the onset of their illness/treatment.

Accordingly, patients with cancer who receive more social support manage their condition better (Yeung and Lu, 2018). Health practitioners must therefore demonstrate empathy, pay close attention to and understand patients, work to keep their minds in balance, and be aware of available resources in order to effectively patients in coping with the disease and its treatment. The current findings emphasize the value of enhanced social networks and support systems for patients to increase their optimism and drive them away of feeling 'abandoned' due to their disease.

According to Nuraeni *et al* (2015), a feeling of peace within the patient appears as a form of acceptance of the patient's condition who thinks that his condition is a form of rebuke or trial from God, this acceptance makes the participant feel better. The results of this study are also in accordance with Putri *et al* (2017) a study among breast cancer patients in Indonesia revealed that patients with good spiritual effort as a coping strategy will have a low stress effect so that they have a high optimistic attitude to recover.

In line with Endiyono and Herdiana (2016), social support plays a key role in influencing the adaptation of cancer patients while undergoing therapy because with support from family and people around them the patient will feel more loved, valued and cared for. This is also in accordance with the qualitative research conducted by Wahyuni *et al* (2015) which showed that all cancer patients in his study said: the support obtained from the family has an important influence in the formation of a strong psychological condition and remains enthusiastic in undergoing chemotherapy. Patients' spiritual efforts can be used as a coping mechanism that benefits the patient's health and recovery Nuraeni *et al* (2015).

Nuraeni *et al* (2015) implied that spirituality is one of the most important needs that cancer patients must fulfill because cancer can affect the patient's physical and psychological well-being. Based on qualitative research conducted by Wahyuni *et al* (2015), participants expect medical staff to further improve their communication skills by paying more attention to participants who are seeking treatment. From the results of the discussion above, it shows that the efforts of medical personnel to establish effective communication have been successful. All participants said that there were no problems communicating with medical personnel, felt that the services provided by medical personnel

were good, and considered the support provided by medical personnel to be helpful.

According to Egestad (2013), it is important for the patients to give and receive encouragement from peers. By doing so, the patient feels at ease during the treatment period. From the results of the in-depth interviews, the presence of peers who has undergoing same procedure with the participants made the participants feel that they could also go through the same thing and obtain healing.

In line with the qualitative research by Patricia *et al* (2015), among breast cancer patients in Zambia, respondents to her research showed that by seeing other people who have the same condition, they can improve while undergoing treatment helps to reduce stress and gain a sense of security within the respondent. Finding and getting support from peers can therefore be an effective coping strategy for participants.

In line with qualitative research by Ambarwati and Wardani (2015), the way cervical cancer patients deal with nausea and vomiting due to the effects of chemotherapy is by eating the food they like, inhaling aromatherapy, eating various kinds of fruit such as apples, oranges, pears, papayas and drinking enough water. Patients also tend to use their own methods and information from peers to deal with nausea and vomiting. For example, drinking plenty of water, and eating foods with a soft consistency such as starch water, milk, porridge, and pudding to gradually maintain appetite during radiation therapy. This coping method has proven effective in dealing with the side effects of chemotherapy. Mouth sore that caused by chemotherapy and radiotherapy will affect the eating practice of the patients and so eating soft foods that are easy to chew and swallow such as soft fruits (banana, watermelon, peach, pear), custards and puddings, scrambled eggs, oatmeal or cooked cereals is suggested. In addition, drinking 8-10 glasses of water can also reduce the risk of

dehydration during chemotherapy.

Getting support from family and people from the social environment can help the participants feel better, not feeling alone, more enthusiastic about undergoing treatment and seeking healing from his diagnosis. Participants also admitted that if they were not given support from their family or social environment, they would not have been able to survive to this day. Therefore, getting support from family and social environment is an effective coping strategy in making participants survive their diagnosis.

One of the strengths of present study includes the use of a qualitative approach that allows for a broad and holistic view of everyday nasopharyngeal cancer patients' experiences and challenges. Unlike quantitative data, qualitative findings are clearly articulated through the voices of survivors themselves and can enhance understanding of important research questions in ways that qualitative research can do. Besides, the study was conducted in Saiful Anwar Hospital, a referral hospital in Malang City where patients are usually referred from other cities, so it was possible to select participants with maximum cultural diversity and different socio-economic levels.

The limitation of this study that during interviews, patients were experiencing fatigue that may have affected the amount and degree of self-reporting that occurred. Additionally, the limitation of this study is that it was conducted in Islamic community and only can be generalized to similar cultures. Due to the qualitative nature of this study, the sample size is small, and this limits the transferability of result.

In conclusion, based on the presentation and analysis of the data in this qualitative study, an in-depth understanding of coping strategies and eating behavior of outpatient nasopharyngeal cancer patients undergoing chemotherapy at Saiful Anwar Hospital was obtained which

were described respectively into the six main themes, namely, increasing spiritual effort, get family and social support, adhere the advice of medical personnel, seek and receive support from peers, inner optimism, and maintain appetite.

This study provides additional insight into patients' coping strategies with nasopharyngeal cancer. Understanding coping strategies can help health care providers manage comprehensively disease and provide physical, psychological, and social support. Although the health system provides services to improve quality patient's lifestyle, these services are limited to the patient's psychological issue and social support issue, and if these issues are not taken into account, this may lead to severe psychological consequences for patients. Health care providers such as oncologist, nurse, dietitian, psychiatrist are suggested to work hand in hand and provide service for social, emotional, and behavioral coping skills for patients and their families as well. In addition, support groups and social support for nasopharyngeal cancer patients are strongly needed from peers, caregivers and family in order to cope with anxiety and depression.

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#### CONFLICT OF INTEREST DISCLOSURE

All authors declare that they have no conflict of interest.

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