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EXPERIENCES OF HEMODIALIZED PATIENTS WHO HAVE RECOVERED FROM COVID-19 IN MEDAN CITY

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ABSTRACT

Hemodialysis is one of the appropriate treatments for patients with ESRD. The glomerular filtration rate in the kidneys decreased to <60 mL/min and the creatinine and albumin values in the patient's urine increased to >30 mg/g, so that patients with chronic kidney failure had to undergo a treatment to balance and replace the work of the kidneys, namely the hemodialysis process. The research design used in this study is a descriptive phenomenological design. Phenomenology is a method that seeks to find the essence and meaning of phenomena as they are experienced, especially through in-depth interviews with people who have had relevant experiences. In this study, the characteristics of participants were obtained based on the demographic data obtained, where the average age of hemodialysis participants who were positively exposed to COVID-19 was more likely to be under 50 years old, with 7 participants, and 4 participants over 50 years old. . The gender of hemodialysis participants in this study was found to be 6 men and 5 women. Another characteristic that was obtained was that the ethnic groups that participated in this study were, the Batak tribe numbered 6 people, Karo 1 person, Malay 1 person, Padang 1 person and Javanese 1 person. The religion of the participants in this study, it was found that 2 Protestant Christians, 8 Muslims, and 1 Catholic Christian.

INTRODUCTION

Hemodialysis is one of the appropriate treatments for patients with ESRD (Shahgholian & Yousefi, 2018). The glomerular filtration rate in the kidneys decreased to <60 mL/minute and the value of creatinine, albumin in the patient's urine increased to >30 mg/g, so patients with chronic kidney failure had to undergo a treatment to balance and replace the work of the kidneys, namely the hemodialysis process. (Khan et al., 2016). For patients undergoing hemodialysis, this is one of the common treatments and decisions that have a direct impact on the patient where this process will determine what volume of fluid should be removed in each hemodialysis session.ysis (Glyde, Keane, Dye, & Sutherland, 2019). Decisions about fluid management are based on the concept of a target body weight to be achieved. Hemodialysis is done to reduce the amount of accumulation of waste fluid in the body (Smeltzer, Hinkle, Bare, & Cheever, 2018).

According to data from The United States Renal Data System (USRDS) in 2020, chronic kidney failure patients undergoing hemodialysis were 111,000 to 113,000 patients for four consecutive years since 2018. Data on new patients undergoing hemodialysis in 2018 in Indonesia obtained 66,433 data. person. Patients who are actively undergoing hemodialysis treatment are 132,142 people. In the province of North Sumatra, the number of new patients in 2018 was 4076 people, with an average age of 45-54 years. The presentation of new patients was 30.82%, 78% died (6,898 people), and 22% patients who managed to recover (1,941 people) according to data from the Indonesia Renal Registry (Indonesian Renal Registry (IRR), 2018).

The COVID-19 disease first appeared in Wuhan, the capital city of Hubei province, China in December 2019. It was identified as a public health emergency and an international concern emergency by WHO on January 30, 2020 (Zhong, et al., 2020). Corona virus disease (COVID-19) is giving intense attention globally where this infectious disease caused by corona virus 2 (SARS-Cov-2) is very closely related to the SARS virus in 2003 and spreads rapidly (Lai, et al., 2020). COVID-19 disease is transmitted through splashes of saliva from the respiratory system of an infected individual when coughing or sneezing (Lai, et al., 2020).

According to WHO data for regions around the world, on November 9, 2020, there were 48,534,508 confirmed patient data exposed to COVID-19 and 1,231,017 patients who died. Data on COVID-19 patients in the Southeast Asia region, confirmed COVID-19 patients recorded as many as 445,801 new cases, and 5,772 cases of death who had been exposed to COVID-19. The total accumulated data in the 43rd week of the occurrence of COVID-19 cases was 8,878,697 people, and 139,660 people who died. The number of cases of patients exposed to COVID-19 in Indonesia as of November 4, 2020, there were 421,731 cases, patients who died from COVID-19 were recorded in the data as many as 14,259. Patients who are healthy and allowed to go home are 353, 282 people, out of 2,969,883 people who were tested. From this WHO data, Indonesia is ranked 3rd in the Southeast Asian region. In the North Sumatra region, confirmed cases of COVID-19 as of November 7, 2020, data were obtained for 13,665 people, 11,181 patients recovered, 562 patients died. For Medan city data as of November 8, 2020, there are 9,629 suspected cases, with 9,067 suspected patients recovering, 245 suspected patients dying, and 317 suspected patients still undergoing treatment. For data on patients who were confirmed positive for COVID-19, data was obtained from 7,014 people, with confirmed patients who recovered 5,468 people, 305 people died, and 1,241 patients who are still undergoing hemodialysis therapy. (Indonesian Renal Registry (IRR), 2018).

The implementation of hemodialysis is a procedure that is carried out to maintain the life of patients with end-stage renal disease (ESRD). Most hemodialysis patients who undergo this therapy experience comorbidities, namely diabetes mellitus, cardiovascular disease and hypertension. Hemodialysis patients are at higher risk of COVID-19 infection and will worsen their illness. Many patients do not understand how the transmission process of the risk of COVID-19 clearly occurs (Pasari et al., 2020). Patients on hemodialysis who visit a treatment center have a high risk of contracting the infection (Albalate et al., 2020). According to data obtained from the CDC, COVID-19 patients with comorbidities with kidney failure who underwent HD and were exposed to COVID-19 were 3.1% of cases with data on 1,326 people in the United States (CDC.gov).

According to the study of Noce, et al., 2020 the group of hemodialysis patients affected by COVID-19, there was a 21% mortality rate (9 out of 42 positive patients) of patients infected with COVID-19 (Noce, Zorzanello, Patel, & Kodali, 2020). Chronic kidney disease increases the risk of death during the 2019 coronavirus (COVID-19) pandemic, and several reports have reported a high incidence and severity of this infection in dialysis patients. On research results Collado et al., (2020), In Barcelona, there were 7 hemodialysis patients who experienced COVID-19, with an age range of 54 years – 83 years, with the death of 1 patient aged 76 years. And in the results of this study, 6 patients were discharged recovered and continued on dialysis, and one of them was 83 years old (Collado et al., 2020).

According to an article from BBC Indonesia, there are several experiences of patients who want to do hemodialysis in hospital feeling scared, sad, confused and rejected. In a BBC Indonesia article, an epidemiologist and biostatistics expert at the University of Indonesia, Pandu Riono, that patients on hemodialysis have a high threat of death in the midst of the

COVID-19 outbreak and the limited capacity of hospital facilities (BBC Indonesia, 2020). Therefore, researchers are very interested in conducting research on the experiences of hemodialysis patients who have recovered from COVID-19 in Medan City. According to data obtained from research Wang et al., (2020) in Zhongnan, that there were 5 cases of hemodialysis patients who were exposed to COVID-19, in this study it was said that hemodialysis patients who were exposed to COVID-19 had lymphophenia where there was a decrease in white blood cells in the patient. In this case, the age range of hemodialysis patients experiencing COVID-19 is 47-67 years.

On research results Yau et al., (2020) in Canada at St. Michael, there are 237 patients undergoing the hemodialysis process, and 11 patients affected by the COVID-19 case, with an age range of 63 years - 72 years. In this study, patients with COVID-19 had fever, cough, and did not even experience signs and symptoms. Good results were obtained from this study, none of the patients were treated intensively or died. In this study, it was revealed that the average patient was exposed when boarding the shuttle bus, and the examination carried out was a PCR examination. The results of the patient's blood examination showed a decrease in the number of white blood cells with an average of 4.79. In this study, patients experienced 100% of hypertension comorbidities, 64% with heart failure (7 patients), 91% with diabetes (10 people), and 83% of patients with bronchopneumonia (8 patients). According to data obtained from the Rasyida Kidney Hospital, there are 25 hemodialysis patients who have recovered from COVID-19. According to Covid19.go.id data, patients with kidney disease who were positive for COVID-19 were 5.8% (out of 1881 available data), 0.1% were being treated (out of 1881 available data), 2.7% recovered patients (of 1881 available data), patients died 3.1% (out of 1881 available data).

With some of the details of the cases above that have been summarized in this chapter, the researchers are interested in conducting interviews with hemodialysis patients who have recovered from COVID-19. This is an interesting phenomenon to study, because patients with various comorbid diseases and currently undergoing hemodialysis therapy, then exposed to COVID-19 can recover and the mortality rate from several journals is very low. Hemodialysis patients are one of the patients who are very worried if they are exposed to COVID-19 especially with the elderly age who according to the theory the cure rate is very small, but these patients can survive and can continue the hemodialysis therapy process well as usual well. Thus, researchers want to conduct in-depth interviews with hemodialysis patients who have recovered from COVID-19. And the results of this study are expected to be a motivation for both the patients themselves, the hemodialysis community, readers of the results of this study later, researchers and further research can be carried out to provide even more improved care in the nursing world.

The purpose of this study was to explore the experiences of hemodialysis patients who had recovered from COVID-19 in Medan City.

METHOD RESEARCH

The research design used in this study is a descriptive phenomenological design. Phenomenology is a method that seeks to find the essence and meaning of phenomena as they are experienced, especially through in-depth interviews with people who have had relevant experiences (Rautio, et al. 2011). In terms of data collection in this study using an in-depth interview method conducted by the researcher himself with a duration of 60 minutes. This in-depth interview method uses an interview guide that contains several questions that will be asked to participants called an interview guide (Polit & Beck, 2018).

This research was conducted at the Rasyida Special Renal Hospital in Medan and the time of this research was carried out from December 2021 to January 2021.

In this qualitative research, the main instrument is the researcher himself, and is accompanied by a list of questions (interview guide) that has been compiled and has been validated in order to facilitate the continuity and systematic flow of the interview. Researchers also provided a Demographic Data Questionnaire (KDD) which contained participants' statements about the length of hemodialysis therapy, gender, disease history, age, and ethnicity. The researcher used a voice recorder which was used to record detailed interview results. The voice recorder that the researcher uses is the Sonny Voice Recorder which has clearer voice recordings. Researchers also use field notes or field notes so that researchers can record all information during interviews (Polit & Beck, 2018).

Researchers first conducted a pilot study before conducting data collection or interviews. After conducting the pilot study and obtaining the addresses of the prospective participants to be interviewed, the researcher will meet the prospective participants and build a relationship of mutual trust (prolonged engagement). Then the researcher explained the purpose and process of the interview. After the prospective participants understand the purpose of the study and are willing to provide information, the researcher will provide an informed consent form to be signed. Then the interview process will be followed by an in-depth interview technique. The researcher will record the interview process using a voice recorder (Polit & Beck, 2018).

Data analysis was carried out immediately after each interview process ended and the researcher immediately made a transcript of the results of the interviews that had taken place. Data analysis in this study uses colaizzi data analysis (Polit & Beck, 2018). Colaizzi data analysis has 7 important steps that must be carried out when conducting data analysis. However, the first to the third stages must be repeated according to the protocol so that researchers can get the best interview analysis results. Several stages are as follows, namely in the first stage the researcher listens to the results of the interview and retypes it in the form of a transcript, then the researcher will read all the results of the interview carefully to obtain all the data provided by the participants. In the second stage, the researcher extracted the important points expressed by the participants. At this stage, review the interview transcript and filter out any important information needed. Then in the third stage, the researcher formulates the important information needed in a statement. Continued in the fourth stage, the researcher will arrange the grouping of the formulation of the results of the important information into themes, sub-themes, and categories. In the fifth stage, the researcher combines the results of the research into an in-depth description of the phenomenological research that has been carried out. In the sixth stage, the researcher formulates the research results explicitly from each statement that has been identified. And in the seventh stage, the researcher conducts final validation or asks participants again about the truth of the information they have given (Polit & Beck, 2018).

RESULT AND DISCUSSION

This study aims to find out how the experience of patients who underwent the hemodialysis process and was declared cured of COVID-19. Because it is known that hemodialysis patients are one of the patients who have a comorbid disease that makes the patient very vulnerable to being exposed to COVID-19, and can exacerbate the disease they are experiencing. However, based on the results of research conducted by researchers, the recovery rate of hemodialysis patients who are isolated at the Rasyida Kidney Special Hospital is very good. Based on the results of in-depth interviews conducted by researchers with 11 participants, six themes were obtained that can describe the phenomenon of how patients experience the hemodialysis process and are declared cured of COVID-19. The

results of the research discussed were the characteristics of the participants, data on hemodialysis patients who had recovered from COVID at the Rasyida Special Hospital and the discussion of themes obtained from the interviews.

Characteristics of Participants

Participants in this study amounted to 11 people who have met the research inclusion criteria that have been determined. Where the inclusion criteria in this study are hemodialysis patients who have been exposed to COVID-19 positive and have recovered, who are isolated at the Rasyida Special Kidney Hospital, and are willing to be participants to tell their experiences during isolation of COVID-19 at the Special Hospital. Rasyida's kidney and experiencing healing.

In this study, the characteristics of participants were obtained based on the demographic data obtained, where the average age of hemodialysis participants who were positively exposed to COVID-19 was more likely to be under 50 years old, with 7 participants, and 4 participants over 50 years old. . The gender of hemodialysis participants in this study was found to be 6 men and 5 women. Another characteristic that was obtained was that the ethnic groups that participated in this study were, the Batak tribe numbered 6 people, Karo 1 person, Malay 1 person, Padang 1 person and Javanese 1 person. The religion of the participants in this study, it was found that 2 Protestant Christians, 8 Muslims, and 1 Catholic Christian. The next characteristic is the length of isolation treatment days in the hospital, which is more than 7 days, as many as 9 participants, and the length of isolation treatment in the hospital for less than 7 days is 2 people. Participants who contributed to this study also had the characteristics of a long history of the hemodialysis process that had been carried out, divided into two periods, namely less than 1 year totaling 3 participants, and more than 1 year amounting to 8 people. And the characteristics of the last participant in this study were a history of disease experienced before undergoing the hemodialysis process, namely not having a history of 1 person, 2 people with diabetes mellitus, 1 person cyst in the kidney, 1 person uric acid and hypertension, 1 person shortness of breath, hypertension and hypertension. shortness of breath in 1 person, pain in the abdomen for 2 people, cholesterol and uric acid in 1 person, and congenital kidney disorders since birth 1 person.

During the interview, the participants also paid attention to the subjective responses of the participants during the interview. In this study, participants who contributed to this study were interested in conducting interviews and cooperatively in telling their experiences during the COVID-19 isolation period. Most of the participants were interviewed in a relaxed state and not under pressure. Participants tell the experience as it is and not made up, therefore the researcher in this interview really feels the relationship of trust between the researcher and the participants. In this study an interesting thing was found that there was one participant who was 54 years old who underwent an 8-year hemodialysis process and tested positive for COVID-19 2 times, namely the first wave of COVID for 2 weeks, and Omicron (Covid-19 group) for 5 days. . However, the participants were very enthusiastic to recover and were very cheerful during the interview. In general, the atmosphere of the Special Kidney Hospital was also very good and supportive for the interview process. The condition of the room is very clean, good and comfortable for interviews. Participants sit or lie in a comfortable and good condition during the interview process even though the hemodialysis process is in progress. There was eye contact between the researcher and the participants during the interview. So that all the interview process can be done well.

Table 1
Characteristics of Participants

Characteristics of Participants	Frequency (f)	Percentage (%)

Age		
<50 years	7	63,6
>50 years	4	36,4
Gender		
Man	6	54,5
Woman	5	45,5
Ethnic group		
Batak	6	54,5
Karo	1	9,1
Malay	1	9,1
field	2	18,2
Java	1	9,1
Religion		
Christian Protestant	2	18,2
Catholic	1	9,1
Islam	8	72,7
Long time COVID		
<7 days	2	18,2
>7 days	9	81,8
Old HD		
<1 year	3	27,3
>1 year	8	72,7
Illness History		
No history	1	9,1
Diabetes	2	18,2
Kidney cyst	1	9,1
Gout, hypertension	1	9,1
Congested	1	9,1
Hypertension, shortness of	1	9,1
breath	2	18,2
Stomach ache	1	9,1
Cholesterol, uric acid	1	9,1
Congenital defects		

Data on HD Patients Who Have Recovered From COVID RS Rasyida

According to the initial survey results obtained from the medical records of the Rasyida Special Kidney Hospital, the total number of hemodialysis patients who tested positive for COVID-19 during the period January - December 2021 was 141 patients. The number of patients who tested positive for COVID-19 was only in the range of January – September 2021. However, from October – December 2021 there was no data on patients who were positively exposed to COVID-19. From the data obtained, no hemodialysis patients who were exposed to COVID-19 were isolated independently at home, but all patients were treated and isolated in hospitals. The number of patients who recovered from COVID-19 during this period was 94 patients, which had a higher number than the number of patients who died, which was 42 patients. And the patients referred during that period were 5 people.

COVID-19 check

To find out whether the participants were truly exposed to COVID-19, several tests were carried out to be sure. The series of examinations carried out by participants after experiencing signs and symptoms of COVID-19 were swab tests, PCR tests, lung X-rays, and

complete blood tests. Of all the participants who were interviewed, all of them carried out the above procedures so that isolation could be carried out in the hospital. Here are some statements from participants, namely:

"...so it was decided to be treated, Sis, what was it tested before, it turned out to be positive, Sis, I'm surprised." (Participant 1)

"The examination is just a swab, only after entering on Monday, everything is checked, blood is taken, how many are there, seven or six syringes, after that, they are immediately taken to the second floor." (Participant 3)

"Yes, apparently it was checked here, the blood was checked, the swab was apparently positive," he said. (Participant 4)

The first time the PCR was positive, but that day I didn't want to be isolated, this person asked for it, I had to repeat the PCR, but twice, within 24 hours, the first was negative, the second was positive." (Participant 9)

"The first day I entered, at night 10 HD, until three o'clock in the morning, the next morning I went straight to the Ibu Thamrin hospital, took a thorax photo, checked all blood, then entered the isolation room, the fourth day I was taken PCR, the fourth day Friday night at one o'clock in the morning , I was taken to Thamrin's mother again, another chest photo, that Friday, the pulmonary doctor said, this is okay, just waiting for the new doctor." (Participant 11)

"Take it to IG, then it's tested, PCR, apparently I'm positive, X-ray, if the picture of the lungs is good." (Participant 7)

Results from the Analysis of the Experience of Hemodialysis Patients Who Have Recovered from COVID-19

The results of the analysis obtained from research on the experiences of hemodialysis patients who have recovered from COVID-19 based on the Colaizzi analysis method, obtained 6 themes, namely: 1). Coping Process, 2). Physical State, 3). Health Behavior, 4).Family Role and Support, 5). The Role of Nurses and Medical Actions, 6). Environmental Response to Participant Conditions Experiencing COVID-19. The themes that have been obtained will be described in detail in order to get a deeper understanding of how the experience of hemodialysis patients can recover from COVID-19.

Coping Process

1. Psychological Response

The psychological condition of the participants when they were tested positive for COVID-19 was a very clear response when the participants expressed their feelings during the interview. Some responses from the psychological situation that was shaken greatly influenced the healing process of participants from COVID-19. Participants are aware that the condition of those who have cormobit disease and are very vulnerable to being exposed to COVID-19, imagine that it is difficult to recover, and even die. There were several stimulation responses experienced by participants such as fear, anxiety, sadness, worry, shock, surprise, disbelief, when tested positive for COVID-19. There were even participants who were very afraid when they had to isolate themselves in the hospital, experiencing deep sadness. Participants think that if they die, they will not be able to meet their family again or be buried properly according to their religion and beliefs. The fear and anxiety in the isolation room is getting more and more tense when a friend in the isolation room dies and is buried according to the COVID-19 protocol.

During the isolation process, participants experienced many emotional things that affected their physical appearance. However, there were some participants who tried to

just surrender to their current situation, when they tested positive for COVID-19. There are even several times who have tested for COVID-19, so they can be sure that they are really exposed to COVID-19. Here are some patient statements that relate to the details above:

"I can't believe it, I'm the one who got covid, Sis, at that time we went back to sidempuan, our village. I want to be treated again, Mom. Then after that, when I was about to come back here, when I was going to be treated, Mom was washing the blood, you were weak, so it was decided to be treated, Sis, was tested before what it was, it turned out to be positive, Sis, I was surprised." (Participant 1)

"Yes, I don't believe it, I have a heart attack, because I didn't get vaccinated, so I have a heart attack, I'm afraid, because I don't have a vaccine, I don't get a vaccine for Covid, that's what it is." (Participant 3)

"Shock, suddenly said he was positive for Covid, he said, uh, surprised,, in isolation, you imagine how isolation is like that, are you afraid, because you see people tell stories about isolation like this, right, someone suddenly he dropped at night saying he was dead, so be afraid." (Participant 4)

"It adds to the panic, doesn't it, that's why we were moved to another room, that's all the anxiety, so the more ups and downs you fear." (Participant 5)

"Once, because I saw someone beside this, he died, right, sometimes I'm afraid too, never." (Participant 7)

*"Here, sister, a little experience before about a year ago, you already feel congested, so we have brought you to royal prima, sir, on the condition that you have to isolate because you used to be a heavy smoker, that's a requirement, but you beg, ma'am. Don't be isolated, ma'am, please ma'am, I'll die if I'm isolated, at that time you don't want to be isolated, but after Covid, you might think, it's HD again, the last way is to give yourself up for isolation." (Participant 11)***Dinamika Spiritual**

Spiritual dynamics were also experienced by participants who underwent hemodialysis and were exposed to Covid-19. The spiritual dynamics that occurred from various respondents showed various responses, there were participants who had high hopes for God by praying to be kept away from disease and given patience to go through everything. Participants have completely surrendered and surrendered their healing to God Almighty. Participants prayed a lot and prayed while in isolation at the hospital. Participants can only pray to God to be saved from their illness if God still loves them. Participants feel that God still loves them. Participants only ask the family to always pray for him to stay strong through it.

There were also participants who said that the participants' healing was the power of God, in addition to the drugs they were taking. Participants said that his healing was the power of God. Here are some patient statements that relate to the details above:

"That's it, go to the AC room (isolation room). One person right, why can I say? Ee, heal me God I said so. Cheer up, cheer up, the nurse came to see you. I'm excited, I'm excited." ***(Participant 1)***

"Oh, I think it's just like this, yes, we are old, God can call us anytime, right? So I think that even healthy people can die, let alone sick ones, that's all I think." ***(Participant 2)***

"Yes, if we pray, that's for sure, that's all, if we just pray, we don't take any action, it's the same. Yes, that's how it is, yes, move your body, breathe air, even though all around us is Covid, right?" ***(Participant 3)***

"Yes, there were two times in one day, I had tremors, then the nurse gave me another sedative, Alhamdulillah, there's nothing else, so I'll just give up, right, I'm asking God, oh God, don't take me first, give me healing. " ***(Participant 6)***
"Yes, istifar, just be patient, because that's God's plan." ***(Participant 7)***
"Ah, I don't know, I don't know what, we just pray mostly, pray, can't sleep, in the room we can't sleep, there are three of us, so just pray, so it's already a bit better," ***(Participant 8)***

Physical State

The physical condition of participants who showed weakness when tested positive for COVID-19 greatly affected their condition. The signs and symptoms experienced before being tested positive for COVID-19, during the COVID-19 treatment period, and after being declared cured of COVID-19 all affected their condition. In this group of themes, physical conditions are divided into 3 sub-themes, based on the analysis that has been carried out, namely:

a. Signs and symptoms experienced before being declared exposed to COVID-19

Most of the participants experienced signs and symptoms of COVID-19 such as physical weakness, dizziness, nausea, vomiting, fever, shortness of breath, cough, chills before being tested positive for COVID-19. Participants did a COVID-19 examination after several days experiencing signs and symptoms of COVID-19 through the Hospital Emergency Room. There were also some patients who tested positive for COVID-19 through a swab examination before carrying out the hemodialysis process, because they felt that they did not experience any signs and symptoms at all. There was one participant who found out that he was positive for COVID-19 because he was going to undergo a surgical procedure. Here are some statements from participants:

"The process at that time was washing like this, it was also shivering, so after shivering, the doctor said, the doctor was shivering, so the injection was given, the medicine was put there. , right, the results haven't come out yet, so twice they said they'd checked, on Monday when they wanted to come in here, this person said, brother, Covid, you can't wash." (Participant 3)

"You had a fever, this person asked for a swab, it was negative, then asked for another PCR, the result was positive, you had to isolate it, so if you weren't isolated, this person asked for two PCRs, the results were negative positive, then you just came in." (Participant 9)

"Initially it was tight, Sis, short of breath from home and coughing, so my father brought him straight from home, checked the person, the results came out saying he was positive for Covid." (Participant 4)

"The symptoms are feelings such as weakness, dizziness, nausea, the initial symptoms, just going to the hospital, being caught there." (Participant 10)

"...but immediately there was an sms that John had Covid, I was shocked, I wanted to tell you, but if I tell you, you might be in shock later." (Participant 11)

Physical Conditions During the COVID-19 Isolation Treatment at the Hospital

Participants experienced several conditions of physical weakness while undergoing isolation treatment at the hospital. Participants experienced nausea, vomiting, and could not eat and could not sleep. There were also participants who experienced a decrease in blood glucose levels during the COVID-19 treatment period. There were participants who could not eat at all, even if to eat the participants could only eat a few spoonfuls of rice without any side dishes at all. The lack of nutritional intake through food resulted in the participants' physical condition being weakened within a few days of treatment. Participants also experienced weakness in the leg muscles and pain throughout the body. So that participants

during isolation experience limited mobilization and must be given assistance by the family who cares for them or the nurse on duty. This muscle weakness is also directly related to the patient's perception of the spirit to recover, participants assume that if they are weak then they cannot recover from COVID-19. Some patients experience shortness of breath, cough, high fever during the treatment room, and experience decreased consciousness. The decrease in HB until blood transfusions were carried out to participants during COVID-19 isolation also worsened their condition when they experienced COVID-19. Some of these experiences are obtained from the following description:

"There is vomiting, yes, I didn't even want to eat until the last time, only three spoons." **(Participant 1)**

"Oh yes, yes, after that 1 day before going home, people said, I didn't realize this, I said I was having seizures on the third day, yes, I had seizures until I lifted my legs, my head was down, I realized what tool was put here , same machine for what it is, right." **(Participant 3)**

"Well, what's going on, that's all, Sis, at the beginning of the isolation, because it was still tight, the cough was tight, that's all I was thinking about, when it comes to eating, what's your taste, just because of the cough, because if it's already cough, can't stop." **(Participant 4)**

"I don't know, Sis, I don't know what to do, I'm also weak, Mama. Because one doesn't want to eat, Sis, I only want 3 mouthfuls, and even then it's just rice, then when it comes back, I'm worried, Sis, when you call, the nurse doesn't pick up. Then someone called, so someone ordered from there, just checked, it turns out the sugar has dropped" ***(Participant 1)***

"Yes, just walking or standing, sometimes it's hard to stand, sometimes it's hard, the bones are weak, that's why on TV they fall a lot in the middle of the road, that's what it means." ***(Participant 5)***

"Yes, I was afraid, so his hb went down, so Dr Bayu said he had to add blood, apparently suddenly he was called and told to go into isolation, all of my children were in isolation, they were all crying, afraid like this because someone who used to be there too died, near me " ***(Participant 8)***

"Where are you going, this world has gone crazy, when you entered the hospital, when you got Covid, the tension was up to two hundred." ***(Participant 8)***

"Because you're lying down, right, so you can't walk around, don't stand up, right, so when you go out you can't do anything, Sis, you all have to help." ***(Participant 1)***

"Oh yes, three days ago, shortness of breath, just chills, heavy head, sore mouth, forced to put oxygen again, I wanted to vomit and couldn't, finally I was injected slowly, eased the pain, I've been injected, I ask for more dexa, add more, I can endure a little, but I can't sleep, two nights I can't sleep, I ask for sleeping pills, the third night I take sleeping pills, I sleep that night until tomorrow, that's what makes me heal. " ***(Participant 11)***

"Dizziness, nausea, Sis, vomiting, if at first you don't feel good, what comes in is vomiting, that's because of your thoughts, right." ***(Participant 7)***

b. Physical condition when declared cured from COVID-19

When going through the COVID-19 disease process, participants felt signs and symptoms were getting lighter, then several times the COVID-19 examination was carried out, participants could be declared negative and go home for self-isolation. The signs and symptoms that are felt are decreasing and the physical condition is slowly improving. Participants were able to eat, did not feel nausea and vomiting. Then participants can eat well, eat with side dishes and rice, their appetite increases. Participants were also able to finally sleep soundly and satisfied after being given drug therapy by the doctor, and the mind

became calmer. This improved physical condition greatly helped participants to maintain a sense of enthusiasm and motivation to recover. The thought and hope of wanting to go home soon and be with family made muscle weakness and physical pain begin to disappear. Participants also experienced a state of hb which was within the normal range, did not feel weak and dizzy. Some of the participants' statements about their physical condition which is getting better after going through the process of fighting against the COVID-19 disease, namely:

"Ee, on the seventh day, Sis, I just started to feel good, he said, I wanted to use side dishes, before I didn't want to, I just wanted rice." ***(Participant 1)***

"I'm still weak, yes, the fever is starting to decrease, the cough is too." ***(Participant 5)***

"Make it take a long time, come in, the new doctor, check again, take another X-ray, take the blood, the Covid-19 has reduced, so just ask to go home, you can't see people at home." ***(Participant 8)***

"It feels like when you're in HD, your body feels good, it's like you're recovering." ***(Participant 7)***

Health Behavior

In the results of the study, the participants' behavior towards maintaining their own health greatly affected their recovery. From the results of the analysis carried out for the theme of health behavior, three sub-themes were found, namely participants' knowledge about the COVID-19 disease, participants' attitudes towards the disease they were experiencing, and the participants' own actions to overcome the disease they were experiencing. This study got various participant responses about how they behaved towards the COVID-19 disease and the hemodialysis process they experienced. For example, participants responded when they were given instructions to isolate themselves when they were declared COVID-19. Here are some descriptions of the sub-themes obtained from the results of the analysis, namely:

a. Knowledge About COVID-19 Disease

Some participants are very aware of their condition which has weakness if exposed to COVID-19. Because they have a very weak immune system to fight the disease process. Many worries that occur so that participants feel unable to cope with their own illness. Supported by the isolation room situation which is very disturbing if there are friends who scream at night resulting in participants unable to sleep. During the study, the researcher subjectively saw that the participants were very good at knowing this COVID-19 disease. Some statements can represent how participants' knowledge supports self-healing from COVID-19 they are experiencing.

"Just follow, Sis, Mama also washes blood, so if you're in isolation you can do dialysis, but if you're outside, you can't, Sis. Can't wash blood. So, just like that, the doctor said, coincidentally, it wasn't here either, so that's where he said that." (Participant 1)

"Surprised, they didn't seem sure about it, because I also like to cough too, but yesterday the coughing and shortness of breath, that's why two children said "okay mi, we'll take you to the hospital" he said like that, so I was taken to the hospital , was sentenced to have covid, can't go home again, okay." (Participant 2)

"Just stay at home, sis, at least go out every now and then, just go out like this and then come in again, right, the neighbors will sit next to the house, come out here and say that, no, you'll be scared because of me, I'm an isolation patient I said so, I got covid I said that, oh covid-covid, that's why if you sunbathe in the morning so you don't get covid, you say that, you can talk like that I say, you guys are healthy, I'm not healthy, I'm an HD patient, I I have kidney disease, I'm more frail than you guys. I

said that, then I got up the courage, it's okay to sit here, yes, I sit a little farther apart, they sit a bit close together, I'm a bit apart, right." (Participant 4)
"That's very dangerous, especially the delta, if the delta is heavy, especially those who already have a congenital disease." (Participant 5)
"So the symptoms of covid, I don't know, I just got a call from this hospital with my son, because on Friday it was swab, so I was called on Monday, sent to the hospital because of this." (Participant 8)
"He is allowed to go home but must self-isolate at home," (participant 10)
"When I found out that the result was positive, I immediately called, yes, from the start I knew that I had to isolate myself, so no one would worry too much." (Participant 9)
"Yes, if you can take care of it, use a mask, what does the government think, prevent covid from spreading, yes, do it. you can't, you can't eat anything." (Participant 11)

Participant's Attitude Towards COVID-19 Disease

After participants tested positive for COVID-19, several attitudes emerged to deal with the disease they were experiencing. The attitude in this discussion can also be interpreted as a response when participants are declared positive with their condition being more vulnerable than other COVID-19 patients. Participants partially responded to the results of the COVID-19 examination which required them to isolate themselves feeling pressured, because the atmosphere of the isolation room was not good. But in the end, the participants tried to understand the situation they were in, because one isolation room was a fellow hemodialysis patient who was positively exposed to COVID-19, experienced the same stress, the same anxiety, and the same fear. Maybe only 1 out of two patients can treat their illness with ease. Some descriptions of expressions from the interviews are as follows:

"That's it, go to the AC room (isolation room). One person right, why can I say? Ee, heal me God I said so. Cheer up, cheer up, the nurse came to see you. I'm excited, I'm excited." **(Participant 1)**

"Nothing, no story, he likes to scream all the time, scream all day and night. I do get annoyed sometimes, don't I? Yes, but I get used to it, it's the same as delicious, what should we do, right?." **(Participant 2)**

"There's not a lot of pressure, from the start you thought like this, yeh, you're in isolation, the room is like where do you think when you think about it, where are you going to be in the isolation room, isn't it scary, it's different from here, it's a lot of fun here, if you're in the isolation room, that's the place already, what do you mean, where do you say it, it's silent, oh my gosh." **(Participant 8)**

"But you already said, ma'am, I miss going home, I want to go home, he said, you have to get well first, later when you come home it's contagious again, how about we always support you to feel at home there, but you're still bored too." **(Participant 11)**

"Yes, because the crew is enthusiastic, Sis, because you don't have severe symptoms, you just get cold." **(Participant, 9)**

"From me, for people who have been infected with covid and are undergoing hemodialysis, just be patient, don't think about it too much, because if you think about adding to the disease, it could be even worse, no more covid coming, maybe another disease, because of HD, we can't think too much, sis, because the disease comes from the original mind." **(Participant 7)**

Participant Actions While In Isolation Room

In this sub-theme, it can be seen that there are several actions or activities of participants carried out during the isolation process in the hospital. There are two activities carried out while in isolation, namely physical activities and social activities with fellow hemodialysis patients who are in isolation. Some of the physical activities carried out by participants were sunbathing near the hospital window, moving the body, walking around the isolation room area. Meanwhile, socializing activities carried out by participants with fellow hemodialysis patients who experienced COVID-19 were chatting with each other, giving each other motivation, and eating together. There were also participants who did not chat with their isolation roommates because their roommates did not want to talk, and the participants felt that it was not a good thing, the participants felt uncomfortable. However, there was one participant who did not really like having friends in an isolation room, because according to the participant himself, the participants were more comfortable when they were alone, did not feel bothered and were not disturbed. Here are some descriptions of the results of the interviews conducted, namely:

"Yesterday, we never talked in the isolation room, because they didn't want to be spoken to, because when I asked Tanya how many days she was here, sometimes they didn't want to answer. It's just like that, that's all, I can't share, I've moved rooms, to friends who are HD too, just laughing and chatting." **(Participant 2)**

"Yes, if we pray, that's for sure, that's all, if we just pray, we don't take any action, it's the same. Yes, that's it, yes, move your body, breathe air, even though all around us is covid, right." **(Participant 3)**

"Yes, the most sunlight comes from the window, bro, it's opened, right near the window, right, so it's good if it's hot when it hits, sometimes the window is opened too, yes it was hot earlier, when it was morning we were, because we couldn't go out, just stay in there." **(Participant 4)**

"Oh gymnastics,,, someone is wearing stress makeup in the room, I don't know what to do." (Partisipan 8)

"Just take a break, take medicine, you can't go anywhere, right in isolation, it's recommended, but not at the same time, it means we move ourselves." **(Participant 10)**

"Eat regularly, don't eat strange things first, right, food from this hospital, so according to what you are, right, Physical activity, at least you go to the bathroom, rotate, that's it, just move for 15 minutes, let me not stiff." **(Participant 7)**

"I'm the person who can't take big medicine, so I grind it myself." **(Participant 6)**

Pembahasan

The results of research on the experiences of patients who have recovered from COVID-19 obtained from in-depth interviews with participants are closely related to Roy's adaptation theory. Roy's adaptation theory focuses on human adaptation to changes that occur within him. When there is a significant change, humans will have a response or stimulation and take action called coping, where coping can be interpreted as a person's response or behavior in the face of a change that occurs. The intended changes can be changes that occur through internal changes or from within humans themselves and external changes such as changes that occur in the environment experienced by a person. In Roy's adaptation nursing theory, adaptation is a process of thoughts and feelings that result in the reaction of a person or group to be able to accept a change that occurs. (Fawcett, 2006).

Hemodialysis participants who experienced COVID-19 also felt significant changes both from within themselves and the environment around them. Emotional changes in their psyche when tested positive for COVID-19 gave participants reactions of sadness, fear,

worry, shock, and other negative feelings. This of course also affects their physical condition which results in a decline due to the disease they are experiencing. Study Dang et al., (2022) said that stress and anxiety were closely related to hemodialysis patients after being declared COVID-19 with a varying prevalence (from 22.5% to almost 85% for depression; from 32.3% to 44.7% for anxiety). An increase in the anxiety and stress of hemodialysis patients while in isolation at the hospital can increase the instability of the patient's health and decrease immunity, so that the patient is not able to go through the incubation period of the COVID-19 disease process properly and can result in death due to the background of the patient who has comorbidities.

It can be concluded that one example of the research results obtained above, according to Roy's adaptation theory which focuses on human adaptation when a stimulus is inputted into human life, then unconsciously there will be a process to respond to stimuli that occur continuously. This is called the coping mechanism. Coping mechanisms that occur can be divided into two categories, namely adaptive responses that help humans to achieve an integrity that can help humans become better and previous situations or when experiencing changes to survive. The second category is the category of ineffective response where a person is unable and fails to meet the adaptation goals for survival or even threatens the achievement of life goals. In the context of nursing, the adaptation process occurs when a person responds positively to a change in himself and the environment that can bring a person to be healthy. On the other hand, if an adaptive response is ineffective, there will be a disturbance of self-integrity in a person and can disrupt the health system. In research results Sousa et al., (2021) according to the experience of hemodialysis patients who were positively exposed to COVID-19, it was found that participants avoided thinking about the COVID-19 virus, what if something bad might happen when infected, and the consequences that would occur if they were in a tense situation, by not reading news about COVID-19 19. Patients realize that being constantly informed about the news about COVID-19 increases their anxiety and worry, which has a negative impact on their health. Therefore, to cope with these emotions, participants chose to reduce and, in some cases, avoid consuming negative news about COVID-19

This discussion section describes the results of interviews with 11 participants about the experiences of hemodialysis patients who have recovered from COVID-19 in Medan City, namely at the Rasyida Medan Special Kidney Hospital based on the themes found. These themes will be compared with the literature and related research results, including: 1). Coping Process, 2). Physical State, 3). Health Behavior, 4).Family Role and Support, 5). The Role of Nurses and Medical Actions, 6). Environmental Response to Participant Conditions Experiencing COVID-19.

Coping Process

Coping is a person's response to a situation that endangers him either physically or psychologically. Coping mechanisms are strategies used by individuals in dealing with changes in their lives, as well as a response to threats or dangers that cause physical and psychological damage. Anxiety is a feeling of insecurity and fun caused by fear, tension, and feelings of insecurity that cover the mind. When someone experiences a threatening situation, they will cause a reaction of fear. With an excessive push and accompanied by the inability to complete the thymus, it will create an anxiety reaction in someone.

The results showed that the psychological condition of hemodialysis patients when experiencing Covid-19 produced sub-themes, namely the psychological response experienced by participants who experienced COVID-19 and the spiritual dynamics of participants while being treated in the COVID-19 Isolation Room..

The psychological responses experienced by participants were fear, anxiety, sadness, worry, shock, surprise, disbelief when tested positive for COVID-19. According to (Li et al., 2021) a pandemic is a very stressful event, especially for people who are very vulnerable such as those with chronic diseases or have comorbidities. Possible stress-related reactions in response to the coronavirus pandemic can include changes in concentration, irritability, anxiety, insomnia, reduced productivity.

According to the researcher's point of view, patients who experience a disease result in an ineffective response that results in stress. This research is in line with the research conducted (Sousa et al., 2021) said that COVID-19 patients who use infective coping mechanisms are caused by various things that affect the patient's condition, both psychologically and physically. A negative view, helplessness, hopelessness, lack of enthusiasm to recover makes the patient perform ineffective coping mechanisms (Samrah et al, 2020). The COVID-19 situation greatly affects the psychological state of the patient. In this case the patient will experience disturbances in thought processes and concentration, anxiety and disturbances in social relations. The decrease in immunity which has a big effect when the patient is unable to adapt also results in a decrease in oxygen levels in the blood so that participants in this study experience shortness of breath until they become unconscious.

Despite the negative impact of COVID-19, most patients can find some problem-focused or emotional adaptive strategy to cope with the demands and challenges of the COVID-19 pandemic. Adherence to recommended protective measures is the most important coping strategy in all patient statements. How they can understand their current condition, and build a sense of enthusiasm from the support of family and nurses who are by their side at that time. The patients of this study believed that adherence to protective measures was an important prevention strategy because it helped increase a sense of control over the current situation (Antoun et al., 2021).

The spiritual dynamics experienced by participants while being treated in isolation rooms during COVID-19 have an important role. Participants pray and surrender to God Almighty for his recovery. Chronic kidney failure patients who experience Covid-19 will usually turn to spirituality or religion as a fundamental resource to maintain an optimistic outlook in dealing with the situation. Spirituality also has a very important role in overcoming a disease so that a person's quality of life becomes better.

According to the researcher's point of view, spirituality plays an important role in every event experienced by participants and gives an understanding that life is precious and so is death. Participants pray and surrender to God about healing and their lives. This is in line with research conducted by Yilmaz & Cengiz (2020) which found that religious practices are used as behavioral coping and social relationships are used as a driving force in patients who have experienced negative events in life. The power of inter-dimensional spiritual well-being is important as a coping and helps chronic disease patients to look further at their current health conditions so that they can finally achieve life goals. Supriadi & Evangelina (2019) in their research shows that from a spiritual point of view, patients still feel grateful and try to live sincerely despite the trials of illness. This is due to a strong encouragement from family and closest people so that patients become more enthusiastic in carrying out hemodialysis even though the therapy must be carried out for the rest of their lives.

CONCLUSION

This study provides an in-depth understanding of the experiences of hemodialysis patients who have recovered from COVID19. The experiences of hemodialysis patients who have recovered from Covid-19 are illustrated in 6 themes and 15 sub-themes, namely: 1). Coping Process, 2). Physical State, 3). Health Behavior, 4). Family Role and Support, 5). The

Role of Nurses and Medical Actions, 6). Environmental Response to Participant Conditions Experiencing COVID-19. In this study, participants said that they had a high risk of being exposed to the COVID-19 virus because they had a comorbid disease, namely kidney failure. The experience of hemodialysis patients who have recovered from COVID-19 shows that while being treated in the isolation room they experience various coping and handling processes that must comply with health protocols and continue to undergo hemodialysis.

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