

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background**

Kidneys are one of the most important organ in the body. The presence of the kidneys is very necessary for the body, especially to assist in excreting the body's metabolic waste substances and assist in the acid-base balance in the body. Damage or problems with the kidneys will adversely affect the body's ability to excrete metabolic wastes and the mechanism of acid-base regulation will even interfere with the process of forming red blood cells. This impact can worsen the condition of the body of a person who has kidney damage or disorders. One of the common kidney damage/diseases found in the community is chronic kidney disease (CKD) or Chronic Kidney Disease (CKD).

Chronic kidney failure is a kidney function disorder that occurs when the body fails to maintain metabolism, fluid and electrolyte balance so that it can cause retention of urea and other nitrogenous wastes in the blood (Brunner & Suddarth, 2015). Chronic renal failure (CKD) is a clinical syndrome secondary to definitive changes in renal function and/or structure and is characterized by its irreversibility and slow and progressive evolution (Ammirati, 2021). Chronic kidney failure is a pathological condition where there is permanent kidney damage that causes the kidneys to be unable to perform their functions properly, so the body cannot perform metabolism and fails to maintain fluid and electrolyte balance inside the body (Rohmawati *et al.*, 2017).

Chronic kidney disease (CKD) is a progressive decline in kidney function over months or years. Chronic kidney disease is defined as kidney damage and/or a decrease in the Glomerular Filtration Rate (GFR) of less than 60 mL/min/1.73 m<sup>2</sup> for at least 3 months (Cheung *et al.*, 2021). Chronic kidney disease (CKD) is a global public health problem with an increasing prevalence and incidence of kidney failure, poor prognosis and high costs. The prevalence of CKD

increases with the increasing number of elderly population and the incidence of diabetes mellitus and hypertension. About 1 in 10 of the global population has CKD at some stage (Ministry of Health of the Republic of Indonesia, 2017). The results of a systematic review and meta analysis, found a global prevalence of CKD of 13.4% (Hill *et al.*, 2016). The results of the latest data analysis show that in 2017, the global prevalence of CKD was 9.1% (697.5 million cases). The analysis also showed that the prevalence of CKD was higher in women (9.5%) than in men (7.3%). Nearly a third of all CKD cases are in China (132.3 million) and India (115.1 million) (Carney, 2020).

The prevalence of CKD in Asia, especially Southeast Asia in each country, has increased by 66% or about 2.9 million of the total population (Prasad & Jha, 2017). In Indonesia, in 2018, the prevalence of CKD in Indonesia was 499,800 people (2%), the highest prevalence was in Maluku with 4,351 people (0.47%) experiencing CKD and for the 35 provinces in Indonesia, South Kalimantan province is one of the provinces that experienced an increase in the number of CKD sufferers from 2.0% in 2013 to 3.3% in 2018 and this percentage is expected to continue to increase every year (Indonesian Ministry of Health for Basic Health Research, 2018).

Data from the South Kalimantan provincial health office in 2019 showed that the total prevalence of CKD sufferers from January to December 2019 was around 1,597 individuals who suffered from CKD. While in Banjarmasin City in 2019 based on Data from Banjarmasin City Health Office in 2021, there were 680 individuals suffering from CKD. Based on the results of the recapitulation and medical records from the Banjarmasin Ulin Hospital, data was obtained as many as 2,059 registered patients who underwent hemodialysis from the beginning of 2019 to the end of 2020. Meanwhile, from January to November 2021, there were 760 CKD individuals undergoing hemodialysis (Data From Ulin Hospital Banjarmasin, 2021). From the data presented, it is estimated that this prevalence rate will continue to increase every year.

Chronic kidney failure is a pathological condition where there is permanent kidney damage which is generally caused by diabetes mellitus, hypertension, chronic glomerulonephritis, pyelonephritis, continuous use of anti-inflammatory drugs, autoimmune diseases, polycystic kidney disease, Alport's disease, malformations, congenital, and prolonged acute kidney disease (Ammirati, 2021). Chronic kidney failure has a large enough impact on individuals with CKD as well as for state funding. For individuals, CKD can reduce their quality of life, CKD sufferers will usually depend on the hemodialysis process which will have an impact on fatigue, anemia and decreased cognitive abilities (Drew *et al.*, 2019; Palaka *et al.*, 2020). In addition to having an impact on health conditions, patients with CKD also have an impact on the country's economy (Bikbov *et al.*, 2020), and Indonesia is no exception, kidney disease treatment is the second largest health insurance provider after heart disease (Ministry of Health of the Republic of Indonesia, 2017).

Based on the prevalence of CKD incidence and the adverse effects it causes, CKD is one of the non-communicable diseases that globally has received serious attention as one of the targets in the sustainable development goals or known as the Sustainable Development Goals (SDGs), especially in Goal 3, namely ensuring a healthy life healthy and supports well-being for all ages. One of the targets in this goal is to reduce by a third of premature deaths caused by by non-communicable diseases by 2030, especially chronic kidney failure which is increasing in the world today (Centers for Disease Control and Prevention (CDC), 2019).

In addition to having an impact on physiological conditions, the country's economy as well as being one of the world's health concerns, people with chronic kidney failure will generally suffer from chronic kidney disease dealing with various other problems, including being unable to maintain a job and resulting in financial problems (Agustiya *et al.*, 2020). Chronic kidney disease

is a disease that attacks gradually and causes various psychological diseases, such as depression, anxiety and self-isolation (McKercher, 2013 in Agustiya *et al.*, 2020). As many as 63.9% of patients experienced anxiety, 60.5% of patients experienced depression, and 51.7% of patients experienced stress (Mollahadi *et al.*, 2018).

Anxiety suffered by patients with kidney failure is caused by several factors. Behavioral factors in the form of threats to the physical include physiological disturbances that will occur or decreased ability to carry out daily life in patients with kidney failure. The threat from this anxiety stressor can jeopardize the identity, self-esteem, and social functions connected with the individual. Anxiety is a product of frustration from everything that interferes with the individual's ability to achieve certain desired goals in this case. Cognitive factors can affect anxiety in patients with kidney failure because kidney failure patients can feel psychologically exhausted because they have to undergoing hemodialysis for life (Anisah & Maliya, 2021).

The level of anxiety is influenced by several factors, both biological and physiological factors, both from within the patient and from outside the patient, acceptance of the implementation of hemodialysis, socioeconomic status, age of the patient, the condition of the old patient and the frequency of undergoing hemodialysis due to threats from the patient, causing a psychological and emotional response. Observable patient behavior, while self-threats in CKD patients can be sourced from human responses (nurses), human interactions and the environment exposed to the tools used (Anisah & Maliya, 2021).

From the results of preliminary studies and observations conducted in the female & male internal medicine room at Ulin Hospital Banjarmasin, it was found that in each assessment carried out it was rare to conduct an assessment of the client's level of anxiety. In fact, based on the results of interviews with 8 clients with CKD, it was found that 5 of them experienced mild anxiety due to

their disease conditions. When asked to several nurses on duty in the room, they said that they did not have time to assess anxiety and did not take the client's anxiety problem too seriously, so that no special intervention was prepared and applied to CKD clients who experienced anxiety.

Basically, anxiety is a problem that must be studied and overcome by nurse in providing nursing care. The nursing care provided should be holistic which includes providing care on the bio-psycho-socio-spiritual aspects, so in this case the anxiety condition of the client should also be a serious concern for nurses. Anxiety experienced by a person can have an impact on his health condition, especially if you already have an unstable medical history before, then anxiety can worsen the condition of the disease suffered by the client.

Anxiety can have an impact on disturbed sleep patterns and insomnia, this is because anxiety makes the mind confused, afraid, restless, uncomfortable, making it difficult for clients to start and maintain sleep (insomnia) (Sohat *et al.*, 2017). Insomnia and disturbed sleep patterns in clients who experience anxiety will also have an impact on blood pressure instability, namely clients have a tendency to hypertension and find it difficult to lower blood pressure. The correlation between anxiety and the incidence of hypertension, especially in the elderly was explained that anxiety would be the background and exacerbate hypertension because when anxious the blood vessels would narrow and stiffen so that blood pressure would increase (Marliana *et al.*, 2019).

Anxiety can also have an impact on increasing stomach acid which can trigger gastritis in clients. Anxiety can reduce pressure on the lower esophageal sphincter, the band of muscle that keeps the upper part of the stomach closed and prevents stomach acid from leaking into the esophagus. In addition, the stress and anxiety response can cause long-lasting muscle tension. If this affects the muscles around the stomach, it can increase the pressure on this organ and push stomach acid up (Luo *et al.*, 2013). Anxiety in clients can also affect their

respiratory system, so anxious clients tend to experience shortness of breath and difficulty breathing, which that anxiety will trigger the sympathetic nervous system and increase adrenal hormone secretion. Increased work of the sympathetic nervous system and the release of adrenaline hormones will trigger an increase in heart rate to send more blood to the muscles so that it will make breathing fast and shallow to take in more oxygen (Hostiadi *et al.*, 2015).

In other prospective cohort study was explained that anxiety can affect a person's immunity. When a person experiences anxiety, it will trigger an increase in the response of the autonomic nervous system and an increase in the hormone cortisol. High cortisol levels have an inhibitory effect on the production and response of lymphocytes to pro-inflammatory cytokines, thereby suppressing T cell differentiation, B cell initial processing activity and monocyte-macrophage differentiation. Cortisol will also inhibit the migration of polymorphonuclear, monocytes, and lymphocytes to areas of inflammation (Bilqis *et al.*, 2018).

The number of negative impacts caused by anxiety on a person's health condition, especially clients who suffer from CKD, it is necessary for the role of nurses to monitor and help reduce the level of anxiety during the hospitalization process, one way to overcome anxiety is to use relaxation therapy. Relaxation therapy is one of the independent nursing interventions that can be used to overcome the patient's psychological symptoms. This relaxation can be useful for improving health conditions and preventing stress and anxiety (Bulecheck *et al.*, 2013; Tim POKJA PPNI, 2017). One of the relaxation techniques that can be used to overcome anxiety is Benson relaxation. Benson relaxation is a breathing relaxation technique with the addition of an element of belief in the form of certain words that the client chooses or with dhikr. The advantage of this relaxation is that it is easier to do without side effects (Solehati & Kosasih, 2015).

Based on the explanation of the importance of the role of nurses in providing holistic nursing care (care givers), in this case, nurses are expected to not only address the biological or physiological aspects of the client, but nurses also have to learn to carry out comprehensive nursing care such as overcoming anxiety, anger, sadness and joy, in helping clients throughout the health-ill range. Nurses must also be able to build a positive perspective on CKD patients in order to improve their quality of life (Hanafi *et al.*, 2016). In addition, nurses can also act as educators, namely to provide education related to Benson relaxation to reduce anxiety levels in clients, therefore that in the future if the client feels anxiety again, the client can apply this intervention independently without depending on the nurse, so that it will have an impact and even greater benefits in the future.

Therefore, based on the background and description of the problem above, the researcher is interested in providing superior independent nursing interventions in the form of applying Benson relaxation to reduce anxiety levels in clients who have just been diagnosed with CKD (newly diagnosed) and are undergoing treatment in the internal medicine room for women and men at the Ulin Hospital Banjarmasin.

## **1.2 Formulation of The Problem**

Based on the background and problems described above, the formulation of the problem that will be raised in this case study is “How are the results of the analysis of nursing care application of Benson relaxation on anxiety levels on client with CKD Stage V Newly Diagnosed?”

## **1.3 Research Objectives**

### **1.3.1 General Objective**

The general purpose of this study was to analyze nursing care applying Benson relaxation to the level of anxiety in clients with CKD Stage V

Newly Diagnosed in the women and men Internal Medicine Room, Ulin Hospital Banjarmasin.

#### 1.3.2 Specific Objectives

- 1.3.2.1 Describe nursing diagnoses of client with chronic kidney disease (CKD) stage V newly diagnosed.
- 1.3.2.2 Describe the leading nursing intervention for client with chronic kidney disease (CKD) stage V newly diagnosed.
- 1.3.2.3 Describe the leading nursing implementation of nursing client with chronic kidney disease (CKD) stage V newly diagnosed.
- 1.3.2.4 Describe the leading nursing evaluation of a client with chronic kidney disease (CKD) stage V newly diagnosed.
- 1.3.2.5 Analyzing the results of nursing care with the application of Benson relaxation on anxiety in client with chronic kidney disease (CKD) newly diagnosed stage V.

### 1.4 Research Benefits

#### 1.4.1 Applicable Benefits

- 1.4.1.1 For the nurse, This research can be used as a reference for nurses in hospital to provide holistic nursing care by applying Benson relaxation in reducing anxiety levels in clients undergoing treatment in inpatient rooms or outpatient installations in general and in clients suffering from CKD stage V newly diagnosed in particular.
- 1.4.1.2 For the patient and his/her family, This research is expected to be used as a source of information and reference for patients and their families to help reduce anxiety levels independently, and this study can be applied to increase the feeling of relaxation in clients undergoing treatment in an inpatient or outpatient installation room in general and in clients suffering from CKD stage V newly diagnosed in particular.



#### 1.4.2 Theoretical Benefits

1.4.2.1 For the nurse, this research can be used as motivation to increase knowledge in the implementation of providing holistic nursing care to clients with anxiety, especially in clients with stage V CKD disease newly diagnosed. This research also can be used as motivation to provide comprehensive and holistic nursing care not only focusing on physiological problems, but also on psychological problems. On the other hand, this research can contribute to the development of nurses' professionalism in providing medical surgical nursing care as a form of non-pharmacological management application in clients with anxiety.

1.4.2.2 For the researcher and future researcher, This research can be used as evidence based nursing in carrying out nursing actions, especially for clients with anxiety with adding insight on how to reduce anxiety levels by doing the Benson relaxation technique on clients with a medical diagnosis of CKD so that it can increase the author's knowledge, and can also be used as reference material for future researcher.

#### 1.4.3 Benefits for Institution

1.4.3.1 Improve clinical ability to provide comprehensive medical surgical nursing care for clients with stage V CKD disease newly diagnosed in terms of decreasing anxiety levels.

1.4.3.2 Provide nursing care with a holistic approach (bio-psycho-socio-spiritual) and determine tips in improving quality medical surgical nursing care, especially for clients who experience anxiety due to their illness.

## 1.5 Related Research

From some literature and to the best of the researcher's knowledge, there has been no case study research on the analysis of nursing care for clients with CKD stage v newly diagnosed with anxiety through the application of Benson's relaxation intervention, but there are several similar studies related to this research, such as:

- 1.4.4 Haya Ibrahim Ali Abu Maloh, Kim Lam Soh, Mohannad Eid AbuRuz, Seng Choi Chong, Siti Irma Fadhilah Ismail, Kim Geok Soh, and Dima Ibrahim Abu Maloh. (2021). Efficacy of Benson's Relaxation Technique on Anxiety and Depression among Patients Undergoing Hemodialysis: A Systematic Review.

The problem discussed in this study is the effectiveness of Benson's relaxation on anxiety and depression in clients undergoing hemodialysis. This research is a type of systematic review research. The article collection technique in this study was to collect and analyze published articles and research from January 2000-September 2020. The conclusion from this study was that there was a decrease in anxiety and depression in hemodialysis patients who were given therapy with the Benson relaxation technique (Ibrahim *et al.*, 2021).

Differences from the research of Haya Ibrahim Ali Abu Maloh, Kim Lam Soh, Mohannad Eid AbuRuz, Seng Choi Chong, Siti Irma Fadhilah Ismail, Kim Geok Soh, and Dima Ibrahim Abu Maloh. (2021) with this study, namely the researcher here only use the anxiety variable and only use one respondent using the case study method, while the research equation is the use of therapy given, namely the Benson relaxation technique for anxiety.

- 1.4.5 Eman Baleegh Meawad Elsayed, Eman Hassan Mounir Radwan, Neamit Ibrahim Elemam Ahmed Elashri, Abdel-Hady El-Gilany (2019). The Effect of Benson's Relaxation Technique on Anxiety, Depression and Sleep Quality of Elderly Patients Undergoing Hemodialysis.

In this study, the problems discussed were anxiety, depression and sleep quality in the elderly who underwent hemodialysis and the use of Benson relaxation. This research is a quasi-experimental research pre and post test. The sampling technique used purposive convenience sampling with the number of samples obtained, namely 92 elderly people who suffer from CKD and undergo hemodialysis. The conclusion of this study is that there is an effect between Benson relaxation on decreasing levels of anxiety, depression and improving the quality of sleep in the elderly (Baleegh *et al.*, 2019). The difference from the research of Eman Baleegh Meawad Elsayed, Eman Hassan Mounir Radwan, Neamit Ibrahim Elemam Ahmed Elashri, AbdelHady El-Gilany (2019) with this study, namely the researcher here only used the anxiety variable and only used one respondent using the case study method. , while the similarity of the research is on the use of therapy given, namely the Benson relaxation technique for anxiety.

- 1.4.6 Santa Maria Pangaribuan, Nurul Purborini, Yenny, Hsiu-Ju Chang (2020). Effect of Benson's Relaxation Technique on Mental Health and Quality of Life in Hemodialysis Patients: A Literature Review.

The problems discussed in this study are the effect of Benson relaxation on mental status (anxiety and depression) and quality of life of hemodialysis patients. This research is a literature review research. The technique of collecting articles in this study is to collect and analyze articles and published research of 46 articles from various indexed journal sites. The conclusion of this study is that there is an effect between Benson relaxation on depression, anxiety and stress as well as

an increase in the quality of life of CKD patients (Pangaribuan *et al.*, 2020). The difference from the research of Santa Maria Pangaribuan, Nurul Purborini, Yenny, Hsiu-Ju Chang (2020) with this study, namely that the researcher here only use the anxiety variable and only use one respondent using the case study method, while the research equation is in the use of the case study method. The therapy given is the Benson relaxation technique for anxiety.