



## Descriptive study of anxiety among chronic kidney disease patients underwent hemodialysis: Pilot study

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### ABSTRACT

Chronic kidney disease is a kidney organ disease that cannot be cured, has been suffering for the whole life of the patient and must depend on a kidney function replacement device to maintain the sufferer life. Patients who have experienced chronic kidney disease undergoing hemodialysis are difficult to cure and become a major problem for the world, especially the problem of the treatment costs are relatively expensive. Health conditions that are experienced is a crisis situation that can cause psychological disorders. Psychological problems which often arise in patients with chronic kidney disease is anxiety. This study aims to determine the anxiety of chronic kidney patients undergoing hemodialysis at Batang Regional Public Hospital (RSUD). This research type is qualitative research with a descriptive method of phenomenology. The subjects in this study were patients with chronic kidney disease who underwent hemodialysis at Batang Regional Public Hospital (RSUD). The technique used in taking participants using purposive sampling with the number of 5 participants. Data collection techniques in this study used structured interviews about anxiety in 3 aspects, namely physiological, psychological and affective aspects. Data analysis was performed by data reduction, triangulation and drawing conclusions. The results obtained in this study there are 3 aspects of anxiety experienced by participant namely physiological, psychological, and affective aspects. In the physiological aspects of patients complaining that it was difficult to sleep, in the psycho-psychological aspect, the patient still felt afraid of the affective aspects of the patient complaining of decreased patience and tension before hemodialysis.

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## Studi deskriptif kecemasan pasien penyakit ginjal kronik yang menjalani hemodialisa: Pilot study

### ABSTRAK

Penyakit ginjal kronis merupakan penyakit pada organ ginjal yang tidak dapat disembuhkan, diderita seumur hidup pasien dan harus bergantung dengan alat pengganti fungsi ginjal guna mempertahankan kehidupan penderitanya. Pasien yang sudah mengalami penyakit ginjal kronis yang menjalani hemodialisa sulit untuk disembuhkan dan menjadi masalah besar bagi dunia, terutama masalah biaya perawatan dan pengobatannya yang relatif mahal. Kondisi kesehatan yang di alami merupakan sebuah krisis situasi yang dapat menyebabkan gangguan psikis dan psikologis. Permasalahan psikologis yang sering muncul pada pasien penyakit ginjal kronis adalah kecemasan. Penelitian ini bertujuan untuk mengetahui kecemasan pasien ginjal kronik yang menjalani hemodialisa di RSUD Batang. Jenis penelitian yang digunakan adalah penelitian kualitatif dengan metode deskriptif fenomenologi. Subjek dalam penelitian ini adalah pasien penyakit ginjal kronik yang menjalani hemodialisa di RSUD Batang. Teknik

#### Kata kunci:

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yang digunakan dalam pengambilan partisipan menggunakan purposive sampling dengan jumlah partisipan adalah 5 partisipan. Teknik pengambilan data dalam penelitian ini menggunakan wawancara terstruktur tentang kecemasan dalam 3 aspek yaitu aspek fisiologis, psikologis dan afektif. Analisa data dilakukan dengan melakukan reduksi data, triangulasi dan menarik kesimpulan. Hasil yang diperoleh dalam penelitian ini ada 3 aspek kecemasan yang dialami partisipan yaitu aspek fisiologis, psikologis, dan aspek afektif. Pada aspek fisiologis pasien mengeluhkan sulit untuk tidur, pada aspek psikologis pasien masih merasa takut pada aspek afektif pasien mengeluhkan penurunan kesabaran dan tenang sebelum tindakan hemodialisa.

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## Introduction

Chronic Kidney Disease (CKD) is a process in which the kidneys suffer damage that spans more than three months (Muhamad, 2014). Patients with chronic kidney disease according to data from the *Global Burden of Disease 2010*, CKD was ranked 27th in the list of causes of the number of deaths worldwide in 1990, but rose to 18th in 2010. In 2017 it was shown as the cause of death in the 16th sequence. CKD incidence in Indonesia based on Baseline Health Research (Riskesdas) data in 2018 was 19.3%. The number of CKD incident in Central Java showed an increase in 2,488 new patients (PERNEFRI, 2017). One of the hospitals which have hemodialysis services in Central Java, especially at Batang Regency is Batang Regional Public Hospital (RSUD). Based on data from Batang Hospital there is an increase in the number of CKD patients in September to December, from 364 to 411 patients undergoing hemodialysis.

Patients with chronic kidney disease who have entered the *End Stage Renal Disease* (ESRD) stage must undergo a kidney replacement therapy program, one of which is hemodialysis which is carried out routinely and continuously. This will cause the patient to experience various physical effects that are often felt by patients with chronic kidney disease including fatigue, muscle cramps, shortness of breath, pain, sexual disorders and insomnia. These effects can cause psychological symptoms that are mostly experienced by CKD patients undergoing hemodialysis, namely anxiety that can reduce their life quality (Goh and Griva, 2018)

Anxiety is an individual's response to an unpleasant situation experienced by everyone in daily life. Patients with chronic kidney disease are dealing with many stressors, such as loss of kidney function, development of digestive and neurological diseases, bone disease, anemia, unable to play a normal role in the family and work, decreased physical and cognitive strength and loss of sexual function (Semaan, 2018). Except for internal stressors, patients also experience anxiety related to changes in life quality caused by treatment change from conservative to hemodialysis treatment.

Anxiety is one of the things which often complained by patients undergoing hemodialysis. The anxiety experienced by patients arises because of the very long-suffering period. In addition, hemodialysis patients often think negatively of the hemodialysis process that they do for a long time. This situation can cause changes to patients, not only physical but psychological. The process of invasive action is one of the situational factors related to anxiety (Hsu, 2015)

Several previous studies stated that CKD patients undergoing hemodialysis experience anxiety. Based on study conducted by Chen, *et al.* in 2010, 200 patients with hemodialysis were obtained 35% had anxiety, 21.5% had depression. This is supported by the results of a study conducted by Lamusa, *et al.* in 2015 explaining that of 189 CKD patients undergoing hemodialysis programs had severe anxiety 79 people (34.2%), moderate anxiety 68 people (29.4%) and mild anxiety 42 people (18.2%).

Nurani research results explain that chronic kidney failure patients undergoing hemodialysis will experience changes in their lives both in terms of psychological, financial, physical and social aspects. Under these conditions, the patient will interpret his life so that his life is still useful, valuable, and meaningful. The ROEM study (2015), mentions that patients undergoing hemodialysis experience moderate anxiety and still have good life quality.

Based on these matters, the researchers are interested in conducting research on anxiety in patients undergoing hemodialysis at Regional Public Hospital Batang because this anxiety is often experienced by patients undergoing hemodialysis. The purpose of this study was to determine the anxiety of chronic renal failure patients who underwent hemodialysis for the first time at Batang Regional Public Hospital based on physiological responses, psychological responses, and affective responses of patients.

## Method

This research uses qualitative research. The research design used by the researchers is descriptive *phenomenology* that understands the world phenomenon uniqueness of individual life, unique and specific responses experienced by each individual to further explore the phenomenon meaning. The data collection technique uses semi-structured interviews by using interview guidelines that include three aspects of anxiety, namely anxiety in physiological aspects, anxiety in psychological aspects and anxiety in affective aspects.

In physiological aspects, the questions related to anxiety disorders experienced by patients physically during hemodialysis such as sleep disorders, eating disorders, etc. In the psychological aspects of the patient's anxiety examined related to psychological problems during hemodialysis such as fear, anxiety, etc. In the affective aspect, questions focus

more on the patient's emotions such as anger, patience in deal with temptations, etc.

The descriptive phenomenology design has the aim of describing, interpreting and analyzing data in depth, complete and structured to obtain the essence of life experience in the form of stories, narratives and languages of each individual. Participants in this study were 5 patients. The sampling technique in this study is using *purposive sampling*.

The place of this study is located in Batang Regional Public Hospital, is a type C hospital that provides hemodialysis facilities. The room used in the interview process is the hemodialysis room at Batang Regional Public Hospital (RSUD). This study was conducted in September 2019. The researchers conducted interviews with participants after obtaining a research permit from the hospital. The researchers record the interview results with participants using a tape recorder. Then the interview results from the tape recorder transcript the data into writing. Then, the researchers analyze the data and determine the interview results keywords to be the results theme of the conducted interview.

## Results and Discussion

### *Participant Characteristics*

Participants characteristics showed that most participants aged 50-65 years. Increasing age will affect the anatomy, physiology and cytology of the kidneys.

Participants characteristics according to gender are mostly male. This is consistent with Desi's research (2014) that research conducted at PKU Muhammadiyah Hospital in Yogyakarta took respondents from all patients undergoing hemodialysis at the hospital, which consisted of 30 respondents, where males amounted to 21 patients and females totalled 9 patients.

Participants characteristics according to their education level are in junior high school. A person's education level is related to a person's ability to understand health information.

### *Patient's anxiety*

Based on the result of the interviews conducted by the researchers, it was obtained 3 themes of anxiety responses experienced by patients undergoing hemodialysis at Batang Regional Public Hospital. The 3 themes are :

#### *Patient's anxiety on physiological aspects*

The results of interviews conducted with 5 participants found that participants said they had sleep disorders. The following are the results of interviews with participants:

"... yeah, sometimes sleep restlessly, often awakens (P1)

"... because I have this disease, it keeps on my mind, so I can't be restful when I sleep (P3)

"... Yeah, sometimes can't sleep if I want to undergo hemodialysis tomorrow ... because I'm worried (P5)

#### *Patient's anxiety on psychological aspect*

The results of interviews conducted with 5 participants found that the participants said if despite undergoing a long period of hemodialysis, they still had a feeling of fear while undergoing hemodialysis. The following are the interview results with participants:

"... just afraid, even though I have often undergone hemodialysis (P2)

"... Yeah, what should I do ...there is fear, especially if I want hemodialysis (P4)

"... honestly ... I'm still afraid even though I'm used to it (P5)

#### *Patient's anxiety on affective aspect*

The results of interviews conducted with 5 participants found that the participants said they were tense and sometimes felt impatient. The following are the interview results with participants:

"I was feeling tense ... and it felt like I always wanted to be angry, wanted to finish quickly (P1)

"What should I do ... a sick person is definitely impatient (P2)

"... Yes, that's how it is ... can't wait, there is a sense of it ... I want to get angry too ... especially in tense ... (P5)

#### *Patient Anxiety on Physiological Aspects Overview*

An overview of patient anxiety in terms of physiology there is physical changes in the patient in the form of sleep quality change.

The study shows that one of the emergences of anxiety from physiological aspects is that there are participants who have difficulty sleeping but there are also participants who can sleep well before undergoing hemodialysis. The participants' ability to stay asleep shows that anxiety that occurs is not acute because it does not affect the brain work. Carney and Edinger suggested that sleep disorders are not only a sign of anxiety reactions but also a sign of severe anxiety and depression (Jangkup, 2015)

#### *Patient Anxiety on Psychological Aspects Overview*

An overview of the patient's anxiety on the psychological aspect is reviewed from the patient's feelings before undergoing hemodialysis and the patient's acceptance of the experienced hemodialysis conditions.

On the interview results, there was the data analysis showed that anxiety on the psychological aspects of the participants who felt afraid when undergoing hemodialysis.

The fear experienced by the participant is caused by the participant who will undergo an invasive procedure as the process of hemodialysis. Fear is part of the anxiety experienced by the patient.

Person psychological which diagnosed with chronic kidney failure tends to stress directly related to all the problems that must be experienced after knowing about the kidney problems existence in him. Hidayat stated that the treatment problem t of chronic kidney failure is a source of

psychological responses in the form of internal stressors (Jangkup, 2015)

#### *Patient Anxiety on Affective Aspects Overview*

An overview of patient anxiety on the affective aspect can be seen from the attitudes change and participants' behaviour before the hemodialysis process. Affective aspects include patient patience.

Based on interview results and an overview analysis of patient anxiety in terms of affective which arises is there are some patients who experience changes in the patience level.

Patients with chronic kidney failure who choose hemodialysis as a substitute therapy for kidney function will undergo the therapy for the rest of their lives unless the patient undergoes a kidney transplant.<sup>(10)</sup> The dependence of chronic renal failure patients on hemodialysis for the rest of their lives will have a wide impact and cause problems both physically, psychosocially, and economically. The complexity of the problems that arise in patients with chronic kidney failure undergoing hemodialysis will effect in anxiety where the patient will experience impatience and will be easily upset (Smeltzer, 2009).

The emergence of treatment uncertainty experienced as well as the disruption of the patient's lifestyle causes the patient to feel depressed so, one of them causes the patient's level of patience to decrease. While Jangkup explained that

the emergence of changes in patience and tension in patients with kidney failure is an invasive process experienced by patients during treatment or hemodialysis. The patient's need for the hemodialysis process causes the patient to demand more attention from the family so, the quality of their health becomes better if do hemodialysis immediately (Rahardjo, 2009).

#### Conclusions and Recommendations

The conclusion in this study found that anxiety of chronic kidney failure patients undergoing hemodialysis at Batang Regional Public Hospital from physiological aspects was shown by the presence of insomnia behaviour. The anxiety of chronic kidney failure patients undergoing hemodialysis at Batang Regional Public Hospital from psychological aspects showing that patients were in fear and patients' anxiety with chronic kidney failure who underwent hemodialysis at Batang Regional Public Hospital from the affective aspect was the decreased level of patients' patience.

Suggestions for other researchers are expected to be able conducting other studies in patients undergoing hemodialysis not only limited to the description of anxiety. But it can provide alternative interventions that can be used to reduce anxiety in patients undergoing hemodialysis.

#### References

- Muhamad A.(2014). *Serba Serbi Gagal Ginjal; Cetakan Pertama*. Yogyakarta: Diva Press.
- Evaluation IFHM. Global Burden of Disease Study (2017). United States of America
- Kementrian Kesehatan RI. Hasil Utama Laporan Riskesdas (2018) . Jakarta Badan Penelitian dan Pengembangan Kesehatan Departemen Kesehatan Republik Indones.
- PERNEFRI. 10 th Report Of Indonesian Renal Registry (2017). Jakarta
- Goh ZS, Griva K. (2018) Anxiety and depression in patients with end-stage renal disease: Impact and management challenges – A narrative review. *International Journal of Nephrology and Renovascular Disease*, Vol 11, p 93–102. <https://doi.org/10.2147/IJNRD.S126615>
- Semaan V, Nouredine S, Farhood L. (2018). Prevalence of depression and anxiety in end-stage renal disease: A survey of patients undergoing hemodialysis. *Applied Nursing Research*, Vol 11, Pages 80-85. <https://doi.org/10.1016/j.apnr.2018.07.009>
- Hsu TW, Chen YC, Wu MJ, Li AFY, Yang WC, Ng YY.(2011). Reinfusion of ascites during hemodialysis as a treatment of massive refractory ascites and acute renal failure. *International Journal of Nephrology and Renovascular Disease*, Vol 4. Pages 29–33. <https://doi.org/10.2147/IJNRD.S15792>
- Jangkup, Jhoni, Y, K. Elim, C. Kandou, Lisbeth, F, J. (2015). Tingkat Kecemasan Pada Pasien Penyakit Ginjal Kronik yang Menjalani Hemodialisis di Blu Rsup Prof. Dr. R. D. Kandou Manado. *Jurnal e-Clinic*, 3(1), <https://doi.org/10.35790/ecl.3.1.2015.7823>. <http://www.Ejournal.unsrat.ac.id/index.php/eclinic/article/view/7823>.
- Rahardjo P., Susalit, E., Suhardjon. (2009). *Hemodialisis. Dalam Sudoyo, dkk. Buku Ajar Ilmu Penyakit Dalam*. Jakarta: Pusat Penerbitan Departemen Penyakit Dalam Fakultas Kedokteran Universitas Indonesia.
- Smeltzer, S. C., & Bare B. G. (2009). *Buku Ajar Keperawatan Medikal Bedah Brunner & Suddarth (Edisi 8 Volume 1)*. Jakarta: EGC.