The Influence of Pshycoeducation Therapy Toward Anxiety Level in Hemodialysis Patients

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Abstract

Hemodialysis is a treatment used to remove fluid and the waste products from the body when the kidneys are not able to perform its function. Hemodialysis can impact on both physical and psychological dimensions, one of psychological impact is anxiety. Anxiety can be managed by pharmacological and nonpharmacological therapy. One of method to reduce the level of anxiety with nonpharmacological approach is psychoeducation. The study aimed to know differences between anxiety level before and after implementing psychoeducation therapy on hemodialysis patients. This study was type of pre-experimental with one group pre test post test without a control group and involved 30 patients. The technique sample in this study was taken by consecutive sampling. The instrument use questionnaire Hamilton Anxiety Rating Scale (HARS) to determine the level of anxiety before and after a psychoeducation Therapy.Psychoeducation instrument that used is a checklist of activities patient participates in from first session to third session according to standard operating procedures. There was significant difference between the mean level of anxiety on hemodialysis patients before and after psychoeducation is 4.8 (p= 0.000). The study recommended to use a pshycoeducation Therapy to reduce anxiety on hemodialisys patients in early period.

Keywords: Hemodialysis, anxiety, psychoeducation.

Abstrak

Hemodialisa merupakan suatu terapi yang digunakan untuk mengeluarkan cairan dan produk limbah buangan dari dalam tubuh ketika ginjal tidak mampu melakukan fungsinya. Hemodialisa dapat berdampak terhadap dimensi fisik dan dimensi psikologis, salah satunya kecemasan. Kecemasan dapat diatasi dengan cara farmakologis dan nonfarmakologis. Salah satu cara menurunkan tingkat kecemasan secara nonfarmakologis yaitu dengan psikoedukasi. Penelitian ini bertujuan untukmengetahui adanya perbedaan tingkat kecemasan pasien hemodialisa sebelum dan setelah dilakukan terapipsi koedukasi.Jenis penelitian ini merupakan Pre-Experimental dengan One Group PreTestPostTest tanpa kelompok kontrol dan melibatkan 30 pasien yang diambil dengan consecutive sampling. Instrumen penelitian ini berupa kuesioner HamiltonAnxietyRatingScale (HARS) untuk mengetahui tingkat kecemasan sebelum dan setelah dilakukan psikoedukasi. Instrumen psikoedukasi yang digunakan adalah daftar kegiatan yang diikuti pasien dari sesi pertama hingga sesi ketiga sesuai dengan standar operasional prosedur. Hasil penelitian ini menyimpulkan bahwaterdapat perbedaan rerata tingkat kecemasan pasien hemodialisa sebelum dan setelah dilakukan psikoedukasi yaitu 4,8 (p = 0,000). Penelitian ini merekomendasikanterapi psikoedukasisebagai suatu terapi untuk menurunkan tingkat kecemasan pasien hemodialisa pada periode awal.

Kata kunci: Hemodialisa, kecemasan, psikoedukasi.

Introduction

Technological advances can have an impact on changing disease patterns. Indonesia is currently experiencing an epidemiological transition in health issues, where infectious diseases have not been completely resolved while the trend of non-communicable diseases continues to increase. In recent years there has been a change in disease patterns in Indonesia, among others by increasing trends in catastrophic diseases each year. Catastrophic disease is a high-cost disease and complications can endanger the lives of patients, one of which is kidney disease.

Kidney is an organ that has a function as the elimination of metabolic waste, electrolyte fluid balance and acid base. When both kidneys are unable to transport metabolic waste or carry out their regulatory functions, kidney failure occurs. When kidney function is not functioning properly, it requires replacement therapy for kidney function, one of which is hemodialysis therapy.Hemodialysis or often called dialysis is a process used to remove fluids and waste products from the body when the kidneys are unable to perform their functions. Hemodialysis has proven to be effective in removing fluids, electrolytes and metabolic waste and in patients with chronic kidney failure can help survival by replacing kidney function (Smeltzer & Bare, 2010).

The order of the causes of kidney failure patients who received Hemodialysis Therapy in Indonesia based on 2014 due to Hypertension (37%), Diabetes Mellitus (27%), Primary Glomerulopathy (10%), Obstructive Nephropathy (7%), Gout (1%), Disease Lupus (1%), and other causes (18%) (PERNEFRI, 2016). Based on the Indesian Renal Registry in Central Java there were 3363 patients undergoing hemodialysis therapy(PERNEFRI, 2014). In Magelang, specifically Dr. Army Hospital SoedjonoMagelang Chronic Kidney Failure is among the 10 most common diseases. In 2016, from January to December 13, 116 patients underwent hemodialysis. The majority of causes of patients undergoing hemodialysis therapy due to hypertension are 75%, and 25% are caused by other diseases such as Diabetes Mellitus and Acute Kidney Failure (Personal communication, 9 December 2016).

There are several effects that can occur due to the hemodialysis process. Asti (2014)reports that patients undergoing hemodialysis can experience various problems that arise in the form of physical, psychological and socioeconomic imbalances. Another study conducted by Farida (2011)of patients undergoing hemodialysis can affect two dimensions including physical and psychological dimensions. Anxiety is one of the effects of psychological imbalances that are felt by patients.

The psychological impact of anxiety is usually experienced by patients in the initial period. Patients who undergo hemodialysis in the initial period on average experience severe anxiety because the patient feels hopeless, but after continuing the patient begins to adapt(Musa, 2015).There are various actions that can be taken to reduce anxiety both pharmacologically and non-pharmacologically. Varcarolis (2012)therapies that can be given to reduce anxiety include: psychopharmaceutical therapy, somatic therapy, psychotherapy, psycho-educational therapy and psychoeducation. Psychoeducation is a useful way to reduce anxiety. Psychoeducation can reduce the level of anxiety because in psychoeducation there is information that is conveyed so that the patient is able to understand and remind his skills in managing his illness.

The study aimed to know differences between anxiety level before and after implementing psychoeducation therapy on hemodialysis patients.

Method

This pre experimental research with one group pre-post test design was carried out in the Hemodialysis Unit of the Army Hospital dr. Soedjono, Magelang City, involving 30 chronic kidney failure patients undergoing hemodialysis therapy. Consequtive sampling was used in recruiting samples using the inclusion criteria of patients who were undergoing hemodialysis for the first time. Three sessions of the psychoeducation program were carried out in this study including assessment of problems experienced by patients, knowledge management, and anxiety management. At the first meet, after the patient agreed to measure anxiety, followed by session 1, namely identification and knowledge management. The second session is identify patients problem. On the next day, the third session was carried out is anxiety management and continued with measuring the level of anxiety again.

Every patient with chronic renal failure who first underwent hemodialysis therapy and had agreed to participate in this study was measured the level of anxiety using the HARS rating scale. Then, the patient is carried out an assessment of the problems experienced that cause anxiety by using the knowledge interview guide and hemodialysis patient anxiety. Furthermore, the researchers conducted knowledge management and anxiety management using psychoeducation based on the results of data analysis and problem focus. After the patient has been given psychoeducation, the anxiety level is measured using the HARS rating scale. Univariate analysis was carried out to provide an overview of the characteristics of the participants and the dependent t-test was carried out to

determine the effect of psychoeducation on participants' anxiety levels because the data were normally distributed.

Result

Characteristics of research subjects

Characteristics of research subjects describe the distribution of respondents based on age, sex, marital status, education, income, and dialysis frequency.

a. Characteristics of respondents based on age and gender

Table 1. Characteristics of Respondents

Variables	Respondents	
	F	**%**
< 18	1	3,3
19 – 35	5	16,67
36 – 55	20	66,67
56 – 65	4	13,33
Total (n)	**30**	**100**
Married	26	86,7
Single	4	13.3
Total (n)	**30**	**100**
Elementary	4	13.4
Junior High School	10	33.3
Senior High School	12	40.0
Tertiary	3	10.0
Total (n)	**30**	**100**
Knowledge of hemodialysis	21	70.1
Knowledge of hemodialysis patient diet	1	3.3
Knowledge of hemodialysis and diet	4	13.3
Already know about hemodialysis and diet	4	13.3
Total (n)	**30**	**100**

Based on table 1, it shows that most of the respondents who underwent hemodialysis aged 36 - 55 years were 20 patients, consisting of 9 male respondents and 11 female respondents. it can be seen that the majority of respondents who underwent hemodialysis were married, namely 26 respondents (86.7%). it shows that there are more hemodialysis respondents who have high school education, namely 12 respondents (40.0%) and junior high school education who state 10 respondents (33.3%). the lack of knowledge that occurs

in respondents is mostly about knowledge of hemodialysis, amounting to 21 respondents (70.1%).

b.   Characteristics of respondents based on gender and average level of anxiety

Table 2. Characteristics of Respondents Based on Gender and Average Level of Anxiety

Average Level of Anxiety	Gender	
	Male	**Female**
Before Doing Psychoeducation	23,79	28,06
After Doing Psychoeducation	17,71	24,38
Total	41,50	52,44

Based on table 2, it can be seen that the average anxiety level of female respondents is higher, namely 52.44 compared to male respondents, namely 41.50.

c.   Characteristics of Respondents Based on Frequency of Dialysis

Table 3. Characteristics of Respondents Based on Frequency of Dialysis

Frequency of dialysis	Frequency	Percentage (%)
1 time	8	26.6
2 times	6	20.0
3 times	3	10.0
4 times	3	10.0
5 times	5	16.7
6 times	5	16.7
Total	30	100.0

Table 3 above shows that of the 30 respondents, most of the respondents who underwent hemodialysis therapy in the initial period were 1 time, amounting to 8 respondents (26.6%).

d.   Characteristics of Respondents Based on Anxiety Levels Before And After Psychoeducation

Table 4 shows that Characteristics of Respondents Based on Anxiety Levels Before and After Psychoeducation

Table 4. Respondents' Anxiety Before And After Psychoeducation

Score	Anxiety Level	Before Psychoeducation				After Psychoeducation			
		F	**(%)**	**Mean**	**Min-max**	**f**	**(%)**	**Mean**	**Min-max**
<14	No					4	13.3		

	Anxiety								
14-20	Mild Anxiety	4	13.3			8	26.7		
21-27	Moderate Anxiety	12	40.0			14	46.7		
28-41	Severe Anxiety	14	46.7			4	13.3		
	Total	30	100.0	26.07	20-33	30	100.0	21.27	12-30

Based on the table 4, it can be seen that before doing psychoeducation most of the respondents felt severe anxiety with a total of 14 respondents (46.7%). The average anxiety experienced by respondents before doing psychoeducation was 26.07 with the highest total anxiety score 33 and the lowest 20. After psychoeducation the average level of anxiety of respondents was 21.27 with the highest total score of anxiety was 30 and the lowest was 12. After psychoeducation most of the respondents felt moderate anxiety, amounting to 14 respondents (46.7%).

e. Differences in the anxiety level of hemodialysis respondents before and after psychoeducation

Table 5. Differences in the Anxiety Level of Hemodialysis Respondents

Variable	Mean Pre	Mean Post	Difference Mean	Sig	t	Confidence Interval (95%)
Anxiety	26,07	21,27	4,800	0,000	8,331	0,456 -0,503

Table 5 shows that the mean value before psychoeducation was 26.07 and after psychoeducation was 21.27. The decrease in the level of anxiety of the respondents before and after psychoeducation was 4.8. Analysis of paired t-test results showed a significance value of 0.000 with a confidence level of 95% where p <0.005. This shows that psychoeducation can affect the level of anxiety in hemodialysis patients. Thus it can be concluded that the hypothesis is accepted, that is, there are differences in the anxiety levels of hemodialysis patients before and after psychoeducation therapy.

Discussion

The results showed that some of the respondents who underwent hemodialysis aged 36 - 55 were 20 respondents consisting of 9 male respondents and 11 female respondents. Kidney disease is an iceberg phenomenon, the sufferer of which is mostly unknown and

unrecorded (Alam & Hadibroto, 2011). Age is one of the factors that influence anxiety. Adulthood is a period where a person is given responsibility for their actions, has cognitive, affective and psychomotor maturity as a result of learning and psychologically experiences maturity (Hurlock, 2012). Furthermore Kaplan et al., (2015) state that anxiety can occur at all levels of age development and the older a person is, the better the person's level of emotional maturity and the ability to face various problems.

Anxiety is more often experienced by women than men (Soep, 2011). In this study, the average level of women's anxiety was higher, namely 52.44 compared to men 41.50. This can be due to the different coping mechanisms of each individual. These results are the same as research conducted by Jangkup (2015) that out of 40 respondents consisting of 20 male respondents and 20 female respondents showed that the average level of female anxiety was higher, namely 55.6 compared to the average level of male anxiety which amounted to 44.4. Myres in Jangkup (2015) states that women are more anxious than men, where men are more active and explorative, while women are more sensitive. In addition, appearance is very important for women in general. However, in patients with chronic kidney failure, there are physical changes that change a person's self-image to become less attractive, such as changes in skin color, dryness, itching, easy hair loss (Purwati & Wahyuni, 2016).

The results of the study showed that most of the respondents who underwent hemodialysis were married, namely 26 respondents (86.7%). Marital status is a source of social support for patients which can affect anxiety levels. The amount of support received from a partner by people with chronic renal failure will determine the course of the disease and the availability of therapy. Support can be in the form of motivation, appreciation, attention and solution (Putri et al., 2014). With support from a spouse, sufferers of chronic kidney failure can experience emotional changes such as feeling cared for and being more enthusiastic about life. These emotional changes can change the course of the disease for the better so that anxiety will be reduced.

The results showed that most of them had high school education, namely 12 respondents (40.0%). From the results of this study most of the patient education was moderate. Education is a process of learning outcomes at an educational institution with various levels of education. The lower the education, the less it is to be able to analyze and describe new problems so that anxiety will easily occur. This is in accordance with the theory of Stuart & Sundeen (2015) that a person's education level will affect the ability to

think, the higher the level of education, the easier it will be to think rationally and capture new information, including in describing new problems. Research conducted by Rachmaniah (2012) states that out of 44 respondents, most of the patients had moderate education and experienced moderate anxiety before undergoing hemodialysis. This shows that the level of education can affect the level of anxiety.

The results showed that the frequency of respondents undergoing hemodialysis therapy was mostly for the first time, namely as many as 8 respondents (26.7%). In the initial period the respondents underwent hemodialysis therapy, anxiety increased. The results of this study are the same as research conducted by Nadia (2012) on anxiety in patients with Chronic Renal Failure at the RSP Dialysis Laboratory. The Indonesian Air Force, which said that based on the length of hemodialysis, the mean value of anxiety was higher at the beginning of the month. Hemodialysis is an action to treat kidney failure using a dialyser machine. Patients who are stage 4 must undergo lifelong hemodialysis because kidney function is less than 15% (Alam & Hadibroto, 2011).

Anxiety can be higher in the initial period because the patient does not know the procedure of action to be performed, worries about the action and the prognosis of treatment. After hemodialysis, the patient understands the procedure and has begun to adapt. According to Rahman (2013) the relationship between anxiety levels in hemodialysis patients is in the period or length of time the patient undergoes hemodialysis therapy, where in the initial period the patient's anxiety level is high and in the next period the anxiety level decreases and the longer the patient undergoes hemodialysis therapy the level of anxiety decreases because the patient already at the accepted stage (accept).

From the results obtained, most respondents did not know about hemodialysis which includes the definition, function, and complications of hemodialysis, namely 21 respondents (70.1%). Knowledge is closely related to a person's level of education and one's education can affect the high level of anxiety in chronic kidney disease patients undergoing hemodialysis. This can be due to the patient's lack of knowledge and information about the process of undergoing hemodialysis and the risks that will occur to him, either from close people, family or media such as magazines and so on. One of the important points in psychoeducation is delivery of information, where the information provided uses a media. Media as a means of communication used to facilitate the delivery information (Haris et al., 2019). Factors that can affect knowledge include education, experience, age, occupation and information obtained from various sources. Knowledge or information is an important

function to help reduce anxiety. The more knowledge one has, a person will know the mechanism that will be used to overcome his anxiety (Notoatmodjo, 2014).

The results showed that the mean level of anxiety in hemodialysis patients before psychoeducation was 26.07 and after psychoeducation the average level of anxiety in patients was decreased, namely 21.27. This shows a difference in the mean level of anxiety of respondents before and after psychoeducation with a difference of 4.8 (p value = 0.000). Anxiety is an anxiety, a feeling of discomfort accompanied by an individual autonomic response as well as worry caused by the anticipation of danger (Wilkinson, 2012). The level of anxiety can be influenced by biological and physiological factors and anxiety can be overcome by pharmacological and non-pharmacological ways.

One way to reduce anxiety levels is psychoeducation. Psychoeducation is an action given to individuals or families to strengthen coping strategies or a special way of overcoming psychological problems experienced by someone (Mottaghipour & Bickerton, 2005). Prior to psychoeducation, the level of anxiety was higher because the respondents did not know more about the problems they were facing. The results of a study conducted by Jaji (2013) showed that the average level of anxiety in breast cancer patients before psychoeducation was higher, namely 55.30 and the average level of anxiety after psychoeducation was 44.50. The benefits of psychoeducation can help overcome anxiety, make you feel better, can help solve problems at hand, and foster self-confidence. Psychoeducation can strengthen coping strategies in dealing with the difficulties of mental changes that occur (Varcarolis, 2012).

The same study conducted by Rohmi (2015) stated that psychoeducation can reduce anxiety levels with family research subjects of Tuberculosis patients and using a control group. These results indicate an influence on the level of anxiety before and after psychoeducation where the p value is 0.03 (p ≤ 0.05) and in the control group that only provided counseling was 0.083 (p ≥ 0.05).

The difference or change in anxiety levels before and after psychoeducation can be caused because the psychoeducation carried out involves anxiety management, namely in session III. In this session, the researcher intervened with the aim that the patient was able to express the anxiety he felt and taught him how to deal with the anxiety he faced using deep breath relaxation techniques. This is consistent with Carson's (2012) theory that psychoeducation is a strategy to reduce risk factors associated with behavioral symptoms such as anxiety. So, in principle, psychoeducation helps in increasing knowledge about the

disease through providing information and education that can support the treatment and management of anxiety.

Conclusion

The study showed that most of the patients undergoing hemodialysis suffering from anxiety ranging mild to severe. Psychoeducation as nursing intervention was an effective approach to reduce anxiety among chronic renal disease doing hemodialysis. Is is suggested that psychoeducation to be determined as a nursing intervention inserted in nursing care standard to care for hemodialysis patient.

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