The Relationship Between Family Support and Depression among Patient with Renal Failure

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ABSTRACT

Background: Family support is an essential factor supporting psychological conditions during hemodialysis.

Purpose: We analyzed the relationship between family support and depression in kidney failure patients undergoing hemodialysis in Hemodialysis Room Dr. Saiful Anwar Hospital Malang

Methods: A cross-sectional study was used. Sample selection technique determined by quota sampling method then 107 patients were obtained as participants. Data were collected using MOS-Social Support Survey (MOS-SSS) & Zung Self-Rating Depression Scale (ZSDS) questionnaire. Data analysis used the Spearman Rho test with α = 0.05.

Results: Data showed that 48 respondents (44.9%) had sufficient family support. Most of the respondents, 46 respondents (43%), experienced mild depression. The statistical test showed a significant relationship between family support and depression with p < 0.001. Relationship strength value (r) is -0.530 or negative, and family support is inversely related to the incidence of depression. The correlation strength category is vital.

Conclusions: There is a significant relationship between family support and depression in patients with kidney failure in Hemodialysis Room Dr. Saiful Anwar Hospital. The study suggests that the nurse provides family education to encourage positive family support.

Keywords: family support; depression; kidney failure

INTRODUCTION

Kidney failure is a kidney disorder that arises due to various factors, such as infections, tumors, congenital abnormalities, metabolic or degenerative diseases, and others. Chronic kidney disease usually occurs slowly and chronically. Much research confirms a high prevalence of depression and anxiety among patients with Chronic Kidney Disease (CKD). It is estimated that 23.7% of patients with CKD have depression. Additionally, CKD patients on dialysis are more likely to develop depression (34.5%) compared with patients not on dialysis (13.3%) (Mosleh

et al., 2020).

The Indonesian population suffering from kidney failure is 19.3% or 19 per 1000. The highest prevalence of kidney failure, 38.7%, was in Jakarta. Based on gender, most kidney failure in males (4.17%) was higher than in females (3.52%). The highest prevalence was in 65-74 years (8.23%) based on age characteristics. Based on education, the majority of kidney failure is highest in people without a school background (5.73%), higher in urban areas (3.85%) than rural areas (3.84%) (RISKESDAS, 2018). In East Java, prevalence increased from 2007-to 2017 as 4,828 people (PERNEFRI., 2017). The number of patients with kidney failure in Malang is 3.54 million thousand residents treated by dialysis at dr. Saiful Anwar Hospital Malang (Rekam Medis, 2019).

The number of dialysis patients increases every year. During 2013 were 5,700 patients, and from 2013 to 2014, dialysis treatment reached 3,005 patients. Several dialysis patients continue to grow up (PERNEFRI, 2018). Incidence of depression in dialysis patients impacts prolonged hospitalization, morbidity and mortality, and adherence therapy. Research by Semaan et al. (2018) showed that 40.8% of patients diagnosed with kidney failure experienced cases of depression; even 24.1% of them experiencing depression also experienced anxiety at the same time.

Results of research conducted by Ruza et al. (2017) patients who experience depression are adaptive coping patients. Meanwhile, Mailani & Andriani (2017) states that adaptive coping got by support is needed, one of which is family support. Based on a preliminary study at hemodialysis unit dr Saiful Anwar Hospital Malang, total patient visits in November 2019 were 3,900; December 2019 was 2,898, and January 2020 was 2,909. The average number of patients per day undergoing hemodialysis therapy in November 2019 was 150 patients/day. In December 2019, 149.9 patients/day, and in January 2020, 144.7 patients/day (Rekam Medis, 2019). Interviews were conducted on five hemodialysis patients; hemodialysis patients found that four people were accompanied by their families, and as many as two people experienced symptoms of depression. This study aimed to investigate the relationship between family support and depression incidence in patients with chronic kidney failure. The research was conducted on patients with chronic kidney failure who underwent hemodialysis therapy in the Hemodialysis Room of dr Saiful Anwar Hospital Malang.

METHODS

Design

The research design was descriptive-analytic with a cross-sectional study.

Sample and Setting

The population was patients with chronic kidney failure who visited the hemodialysis unit at dr. Saiful Anwar Hospital Malang amount to 1,209 patients. The population was screened using inclusion and exclusion criteria. Inclusion criteria were (1) Patients are in the age range of 17-65 years (2) Willing to be research subjects and fill out an informed consent form (3) Patients with chronic kidney failure undergoing hemodialysis therapy at Saiful Anwar Hospital Malang (4) Patients with chronic kidney failure stage 4 & 5 (5) Suffering from kidney failure > 6 months (6) Patients with chronic kidney failure who live in the same house with their family. The exclusion criteria were patients with chronic kidney failure who had co-morbidities with cancer. This resulted in inappropriate 146 patients. The sample size was 107 respondents. The sampling technique was purposive sampling.

Variables

Independent variable was family support, and the dependent variable was depression.

Instruments

Instruments used in the study were Medical Outcome Study – Social Support Survey (MOS-SSS), family, support questionnaire, and depression level questionnaire using Zung Self-Rating Depression Scale (ZSDS).

Data Collection

IResearchers formed an enumerator team consisting of hemodialysis room nurses. Enumerators are needed because of the research policy at crossing the room and the policy due to COVID-19 pandemic transmission.

Data Analysis

Bivariate analysis was used in this study to determine the relationship between categorical variables of family support and depression

incidence in patients with chronic kidney failure using Spearman Rank Rho statistic test with 95% Confident Interval (CI).

Ethical Consideration

This research has obtained ethical approval from RSUD Dr. Saiful Anwar Malang on June 15, 2020. The number that passes the ethical review is 400 / 136 / K.3 / 302 /2020.

RESULTS

This research was conducted in the Hemodialysis Room, RSUD Dr. Saiful Anwar Malang, with 107 patients as respondents. Data retrieval in the study used a questionnaire sheet containing two variables, namely family support and the level of depression. The data that has been collected is then analyzed using univariate and bivariate analysis. Descriptive statistical results of demographic characteristics 42 respondents (39.3%) were in the early elderly category or the age range of 46-55 years, 80 respondents (74.8%) were male, 35 respondents (32.7%) had Recent education history in high school (SMA), 35 respondents (32.7%) work as private employees, 91 respondents (85%) have marital status and are married, 42 respondents (39.3%) have income according to the minimum wage in Malang City, 47 respondents (43.9%) had a long history of undergoing hemodialysis 1-3 years, 68 respondents (63.6%) had no complications (Table 1).

Based on table 2, it is known that from 107 respondents, almost half of them, amount 48 respondents or 44.9%, have family support in the moderate category.

Based on table 3, it is known that from 107 respondents, almost half of them, amount 46 respondents or 43% experienced depression in the mild category.

Based on table 4, know that 29 respondents (27.2%) had family support in the moderate category with mild depression, 23 respondents (21.5%) with good family support did not experience depression and 17 respondents (15.9%) with family support in the moderate depressed category. Furthermore, it is known that from 107 respondents, results of the Spearman Rho statistical test obtained a value of p < 0.001 ; p < 0.05, which means H1 is accepted and H0 is rejected, so it can be interpreted that there is a significant relationship between family support and incidence of depression in patients with kidney failure. in

Table 1. Distribution of Patients Characteristic in the Hemodialysis Room (n=107).

Characteristics	n	%
Age		
Late Teens (17-25 years)	6	5.6
Early Adult (26-35 years)	9	8.4
Late Adult (36-45 years)	27	25.2
Early Elderly (46-55 years)	42	39.3
Late Elderly (56-65 years)	23	21.5
Characteristics Gender		
Female	27	25.2
Male	80	74.8
Educational Characteristics		
Elementary School	27	25.2
Junior High School	25	23.4
High School	35	32.7
Undergraduate	20	18.7
Job Characteristics		
Jobless	25	23.4
Housewife	13	12.1
Entrepreneur	18	16.8
Private employees	35	32.7
Government employees	16	15
Marital status		
Single	5	4.7
Married	91	85
Divorce	11	10.3
Income		
Below the minimum wage	34	31.8
Minimum wage	42	39.3
Above minimum wage	31	29
Time undergoing hemodialysis		
< 1 Year	18	16.8
1—3 Years	47	43.9
> 3 Years	42	39.3
Complications		
None	68	63.6
Hypertension	24	22.4
Diabetes Mellitus	15	14

Hemodialysis Room, Dr. Saiful Anwar Malang. Strength value (r) is -0.530 or a negative value, which means that family support is inversely proportional to the incidence of depression, and a strong correlation is strong. Its means that higher families support lower the incidence

Table 2. Distribution of Family Support for Patients with Kidney Failure in the Hemodialysis Room

Family Support	n	%
Less	13	12.1
Moderate	48	44.9
Good	46	43

Table 3. Distribution of Depression in Patients with Kidney Failure in the Hemodialysis Room.

Depression	n	%
No Depression	25	23.4
Mild	46	43
Moderate	31	29
Severe	5	4.7

Table 4. Cross-tabulation of Family Support with Depression in Patients with Kidney Failure in the Hemodialysis Room

Family Support	Depression				Total n (%)
	No Depression	Mild	Moderate	Severe	
Less	0 (0%)	3 (2.8%)	5 (4.7%)	5 (4.7%)	13 (12.2%)
Moderate	2 (1.8%)	29 (27.2%)	17 (15.9%)	0 (0%)	48 (44.9%)
Good	23 (21.5%)	14 (13%)	9 (8.4%)	0 (0%)	46 (42.9%)
Total	25 (23.3%)	46 (43%)	31 (29%)	5 (4.7%)	107 (100%)

Test Type		Sample	Value (r)	Value (p)
Spearman Rho Statistical Test		n = 107	r = -0.530	p < 0001

of depression experienced by the patient.

Discussion

Results showed that almost half of them, namely 48 respondents or 44.9% had family support in the excellent category. Meanwhile, a small proportion of 13 respondents, or 12.1%, have family support in less variety. According to Friedman et al. (2010), family support is the attitude action of family members. Including informational support, assessment support, instrumental support, and emotional support. Family support is a form of interpersonal relationship that includes attitudes, actions, and acceptance of family members. Family members feel someone is paying attention.

Researchers believe that family support motivates respondents to be enthusiastic when undergoing hemodialysis therapy. The researchers found support was the family's willingness to assist during the hemodialysis process, take the patient to a hospital, manage BPJS insurance for payments, and provide information/supervision support, especially regarding patients at home.

High level of family support in study related to educational history. Results showed majority had a history of high school education. According to (Setyawan, 2017), factors influence family support, one of which is education. Researcher belief in the existence of a consent is formed by intellectual variables consisting of knowledge, educational background, and experience. Cognitive abilities will shape a person's way of thinking, including understanding factors related to disease and using health knowledge to maintain his health.

Results showed that almost half of them, 46 respondents or 43%, experienced depression in the mild category. Meanwhile, only five respondents, or 4.7%, experienced severe depression. Depression is a severe mental disorder characterized by feelings of sadness and anxiety. It usually disappears within a few days but can also be continuous so that it affects daily activities (National Institute of Mental Health, 2019). Depression is a mental disorder characterized by symptoms of decreased mood, loss of interest in something, feelings of guilt, sleep or appetite disturbances, loss of energy, and reduced concentration

(World Health Organization, 2017).

The number of respondents who experience mild depression is related to the length of time undergoing hemodialysis therapy. Riccio et al. (2018) state chronic physical illness is a condition where the disease occurs for a long time and usually cannot be cured entirely, although some illnesses can be controlled with a healthy lifestyle and some medication. Some chronic diseases that cause depression are diabetes, heart disease, arthritis, kidney failure, HIV/AIDS, lupus, and sclerosis.

The researcher believes that the length of hemodialysis is a factor in forming a depression. Duration of hemodialysis is related to feelings of saturated, repeated actions, dependent on machines in life long, and helplessness. A study supports this longer undergoes hemodialysis, is more accessible to experience depression and impacts adherence.

Family support is one of the family's duties. The family's task in health care, according to Friedman et al. (2010), is recognizing health development disorders of each family member, making decisions for appropriate health actions, providing care when family members got hospitality, and maintaining a home atmosphere related health and personality development of family members. The absence of tasks and family support increases the occurrence of depression.

According to Agerskov et al. (2020), the absence of family support causes discomfort, inability, dependence, and insecurity, so a person tends to become depressed. People with chronic pain conditions such as kidney failure are prone to depression, especially when forced into a position where they are powerless.

Researchers' opinion that family is the smallest unit in society and interdependent with one another. Support from family is significant for patients with chronic kidney failure in undergoing hemodialysis because it can motivate patients to adhere. The patient feels that there is still someone who gives attention, affection, or someone who cares for him even though he is sick. Researchers argue a form of support by families was emotional support (attention, affection, empathy), appreciation support (appreciating, feedback), informational support (suggestions, advice, information), and in the form of instrumental support (assistance). Energy, money, and time). Thus, appropriate family support is needed by the depressed to provide new power and focus on the meaning of life. Conversely, inappropriate support can increase the burden of thought and significantly affect the patient's level of depression.

Conclusions

The study's conclusion was a significant relationship between family support and incidence of depression in the Hemodialysis Room of Dr. Saiful Anwar Hospital Malang. They are recommended for nurses to improve family education to provide positive reinforcement for patients with kidney failure in the Hemodialysis Room of Dr. Saiful Anwar Hospital Malang. In addition, nurses also need to conduct a depression assessment experienced by patients with kidney failure to determine nursing interventions and recommend for hospitals to promote family support for patients with hemodialysis. Future studies are expected to examine interventions for depression in patients with kidney failure, considering many patients experience depression both in mild and severe depression levels.

Declaration of Interest

No conflict of interest

Data Availability

The datasets generated during analyzed the current study are available from the corresponding author on reasonable request.

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