



The Relationship between Attitudes and Family Support and Compliance with Fluid Restrictions in Chronic Kidney Failure Patients on Hemodialysis

Santa Manurung¹, Ace Sudrajat², Suratun³, Ni Luh Putu Ekarini⁴, Wartonah⁵, Salma Salsabila⁵, Nelly Yardes⁶, Dewi Lusiani⁷, Tri Endah Pangastuti⁸

^{1,2,3,4,5,6,7,8} Department of Nursing, Health Polytechnic of Jakarta III, Indonesia

ABSTRACT

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Chronic Kidney Failure is a non-communicable disease, where the process of the disease leading to a decline in function takes a long time and cannot return to normal. The prevalence of Chronic Renal Failure in the world and in Indonesia is estimated to increase by 8% every year. One of the most common problems faced by Chronic Kidney Failure patients undergoing hemodialysis is the increase in fluid volume between the two hemodialysis periods. Compliance with fluid restriction is a very important factor, where the factors that influence compliance include attitude and family support. The purpose of this study was to determine the relationship between attitude and family support with adherence to fluid restriction in patients with Chronic Kidney Failure with Hemodialysis at Jakarta Hajj Hospital with a quantitative method where the type of research used was descriptive analysis with a cross sectional design. Data collection was carried out using a questionnaire with chi-square test analysis. The number of samples used was 68 samples with purposive sampling. Statistical test results showed that there was a relationship between attitude and adherence to fluid restrictions ($p=0.032$) and there was a relationship between family support and adherence to fluid restrictions ($p=0.033$) in patients with chronic kidney failure in the hemodialysis room at Haji Hospital, Jakarta.

KEYWORDS

Attitude, Family Support, Fluid Restriction Compliance, CRF.

INTRODUCTION

Chronic Kidney Failure sufferers continue to increase and become a health problem not only in Indonesia, but also in developed countries. Chronic Kidney Failure is a non-communicable disease, where the process of the disease leading to a decline in function takes a long time and it cannot return to its original state or is irreversible. Nephrons in the kidneys that have been damaged, including the renal tubules and glomeruli, cannot function normally anymore. The kidneys have the function of removing the body's metabolic products in the form of toxins, so that decreased kidney function causes fluid imbalance and can cause accumulation of fluids and electrolytes in the body. (Siregar, 2020).

Corresponding Author: Santa Manurung

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The prevalence of chronic kidney failure in the world and in Indonesia is increasing every year. According to CP. Kovesdy (2022) in his research entitled Epidemiology of Chronic Kidney Disease: an update 2022, the prevalence of Chronic Kidney Failure in stages 1-5 in the world is estimated to reach 843.6 million people. WHO states that the incidence of chronic kidney failure in the world reaches 10% of the population, which ranks 20th in the world, with hemodialysis patients reaching 1.5 million people. On the other hand, the incidence of Chronic Kidney Failure is estimated to increase by 8% every year.

Chronic Kidney Failure is one of the 4 catastrophic diseases in Indonesia. According to the 2018 Basic Health Research report, the prevalence of Kidney Failure in Indonesia reached 0.38% of the entire Indonesian population. There was an increase of 0.18% from the 2013 RISKESDAS data, while the prevalence of Chronic Kidney Failure by province in the population aged ≥ 15 years, DKI Jakarta was ranked 5th in Indonesia where it reached 28,985 people.

According to Rachmawati, Wahyuni, and Idriansari (2019), one of the functions of the kidneys is to maintain fluid and electrolyte balance in the body. If the body cannot maintain

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fluid and electrolyte balance until Chronic Kidney Failure occurs, then hemodialysis therapy needs to be carried out. Hemodialysis therapy is the main choice for patients with chronic kidney failure, where around 78% of the therapy usually given in Indonesia is hemodialysis.

One of the most frequent problems faced by Chronic Kidney Failure patients undergoing hemodialysis is an increase in fluid volume between two hemodialysis periods which is manifested by edema and increased body weight. Fluids that enter the body of chronic kidney failure sufferers must be carefully considered. Fluid intake that is too high can cause excessive circulation load and edema, while intake that is too low can cause impaired kidney function and dehydration. Therefore, compliance with fluid restrictions is a very important factor in determining the level of well-being of patients on hemodialysis (Karyati, Sukarmin and Listyaningsih, 2019).

One of the factors that influences compliance is attitude, attitude is a willingness to act that is not based on certain motives (Soep, 2017). Apart from that, in research conducted by Saraswati et al. (2019) concluded that there is a significant relationship between family support and compliance with fluid restrictions. Family support factors have an influence in determining health values and beliefs as well as determining the treatment program that will be given to the patient. The family has a role as a care giver who plays a role in providing follow-up care and meeting patient care needs that the patient cannot do alone (Karyati, Sukarmin and Listyaningsih, 2019). Phenomena related to attitudes and family support were also described when researchers carried out clinical practice in the hemodialysis room at Haji Hospital, Jakarta. Patients who

have been undergoing hemodialysis for a long time do not necessarily have good compliance with fluid restrictions, some patients tend to get bored with hemodialysis therapy and limiting fluid intake. It was also seen that several patients underwent hemodialysis therapy without being accompanied by their families, where patients had to carry out treatment and all types of examinations and treatment themselves. There is a gap between the phenomenon and existing theory, therefore, based on this phenomenon, researchers are interested in conducting research regarding the relationship between attitudes and family support and compliance with fluid restrictions in Chronic Kidney Failure patients with Hemodialysis at Haji Hospital Jakarta

METHOD

This research uses quantitative methods where the type of research used is descriptive analysis with a cross sectional design. The variables that will be studied include attitudes and family support as independent variables and compliance with fluid restrictions as the dependent variable. Data collection was carried out at the Jakarta Hajj Hospital in May 2023.

The population in this study were all Chronic Kidney Failure patients on hemodialysis at Haji Hospital Jakarta. The number of samples used was 68 samples with the sampling technique using a non-probability sampling technique, namely purposive sampling. Data collection was carried out using a questionnaire that the researcher developed himself and whose validity and reliability were tested. Bivariate analysis in this study used the chi-square test in the SPSS 25 application program.

RESULTS

Table 1. Frequency Distribution of Attitudes, Family Support and Compliance with Fluid Restrictions in CKD Patients with Hemodialysis at Haji Hospital Jakarta

No	Category	Frequency	Percentage (%)
1.	Attitudes	Less	21
		Good	47
	Total	68	100
2.	Family Support	Less	19
		Good	49
	Total	68	100
3.	Compliance with Fluid Restrictions	Not Compliance	29
		Compliance	39
	Total	68	100

Table 1 shows the univariate analysis carried out on research variables including: attitude, family support and compliance with fluid restrictions. It was found that the attitude of Chronic Kidney Failure patients with hemodialysis at Haji Hospital Jakarta showed that the majority of respondents had a good attitude, namely 47 (69.1%) people. Family support for Chronic Kidney Failure patients on hemodialysis at Haji

Hospital Jakarta shows that the majority of respondents have good family support, namely 49 (72.1%) people. Compliance with fluid restrictions for Chronic Kidney Failure patients on hemodialysis at Haji Hospital Jakarta showed that the majority of respondents complied with fluid restrictions, namely 39 (57.4%) people.

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Table 2. The Relationship between Attitudes and Family Support and Compliance with Fluid Restrictions in Chronic Kidney Failure Patients in the Hemodialysis Room at Haji Hospital, Jakarta

Variable		Compliance with Fluid Restrictions				Total		p value	Odd ratio
		Not Compliance		Compliance		n	%		
		n	%	N	%				
Attitudes	Less	13	19.1	8	11.8	21	30.9	0.032	3.148 (1.083-9.157)
	Good	16	23.5	31	45.6	47	69.1		
	Total	29	42.6	39	57.4	68	100		
Family Support	Less	12	17.6	7	10.3	19	27.9	0.033	3.227 (1.087-9.716)
	Good	17	25	32	47.1	49	72.1		
	Total	29	42.6	39	57.4	68	100		

Table 2 shows that the relationship between attitude and compliance with fluid restrictions was obtained by the highest number of respondents, namely respondents who had good attitudes with a good level of compliance with fluid restrictions, 31 (45.6%) people. The results of statistical tests using chi-square obtained a p value of 0.032 which shows that there is a relationship between attitude and compliance with fluid restrictions in Chronic Kidney Failure patients in the Hemodialysis room at Haji Hospital, Jakarta. The Odd Ratio value shows a value of 3.148, meaning that patients with a good attitude have 3.148 times better compliance with fluid restrictions compared to those with a poor attitude. The results showed that the largest number of respondents were respondents who had good family support with a good level of compliance with fluid restrictions, 32 (47.1%) people. The results of statistical tests using chi-square obtained a value of 0.033, which shows that there is a relationship between family support and compliance with fluid restrictions in Chronic Kidney Failure patients in the Hemodialysis room at Haji Hospital, Jakarta. The Odd Ratio value shows a value of 3.227, meaning that patients with good family support have 3.227 times better compliance with fluid restrictions compared to those with less family support.

DISCUSSION

The research results showed that of the 68 respondents, the majority of respondents had a good attitude, namely 47 (69.1%) people. Based on the results of statistical tests using chi-square, the p value was 0.032, which means there is a relationship between attitude and compliance with fluid restrictions in Chronic Kidney Failure patients in the Hemodialysis room at Haji Hospital, Jakarta. Respondents with good attitudes tend to comply with fluid restrictions compared to respondents with less good attitudes. The Odd Ratio value shows a value of 3.148, meaning that patients with a good attitude have 3.148 times better compliance with fluid restrictions compared to those with a poor attitude. This is in line with the findings in research conducted by Hasyi, Hidayanti and Hasinuddin (2020) which shows that

there is a relationship between attitude and compliance with fluid restrictions in patients undergoing hemodialysis with a p value of 0.012. Other research that supports these findings was conducted by Yundari (2020) which showed that there was a relationship between attitude and compliance with fluid restrictions with a p value of 0.009. The formation of a person's attitude is influenced by several factors such as personal experience, the opinions of other people who are considered important, culture, mass media and emotional influences. A person's attitude will determine his behavior. The positive attitude of Chronic Kidney Failure patients on hemodialysis can support patient compliance in the fluid restriction therapy program as recommended by health workers.

Attitude is a response to a stimulus or object that can be interpreted from previously concluded behavior (Pakphanet al., 2021). According to the researchers, factors such as respondents' personal experiences who felt the impact of not complying with fluid restriction recommendations, causing edema and tightness, will shape the patient's attitude to comply so that this impact does not happen again. Factors that influence attitudes towards Chronic Kidney Failure will form a reaction, namely that patients will tend to comply or not comply with what has been recommended. Attitude also forms the patient's habit of complying with the therapy program. Hemodialysis therapy takes a lifetime, therefore a good attitude really supports the patient's quality of life so that they can remain productive within the limitations they experience.

Based on the explanation above, it can be concluded that there is a relationship between attitude and compliance with fluid restrictions in Chronic Kidney Failure patients. A good attitude is part of what can increase patient compliance in carrying out recommendations suggested by health workers.

Apart from that, the research results showed that of the 68 respondents, the majority of respondents received good family support, namely 49 (72.1%) people. Based on the results of statistical tests using nchi-square, the p value was 0.033, which means there is a relationship between family

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support and compliance with fluid restrictions in Chronic Kidney Failure patients in the Hemodialysis room at Haji Hospital, Jakarta. Respondents with good family support tend to comply with fluid restrictions compared to respondents with poor family support. The Odd Ratio value shows a value of 3.227, meaning that patients with good family support have 3.227 times better compliance with fluid restrictions compared to those with less family support.

This is in line with the findings in research conducted by Saraswati, Antari and Suwartini (2019) which shows that there is a relationship between family support and compliance with fluid restrictions with a p value of 0.012. Other research that supports these findings was conducted by Yundari (2020) which showed that there was a relationship between family support and compliance with fluid restrictions in patients undergoing hemodialysis with a p value of 0.001. Family support is needed to ensure that the patient remains consistent in controlling fluids because the family is the closest person who is always beside the patient. Good family support can be beneficial for the patient's health and well-being, the family's ability to provide care and support influences the health status of sick family members.

Family support is a form of interpersonal relationship that makes patients with Chronic Kidney Failure feel cared for (Kim, Yeom and Jeon, 2020). Family support is a form of motivation that helps whenever the patient needs help. Family support is needed because Chronic Kidney Failure patients will experience anxiety, stress and psychological changes which can increase health problems (Saraswati, Antari and Suwartini, 2019), so it is hoped that family support will be able to support the patient's quality of life.

According to researchers, Chronic Kidney Failure patients on hemodialysis have problems not only with physiological factors, but primarily with psychological factors. Psychological factors such as helplessness are often found in Chronic Kidney Failure patients because this disease is irreversible and the hemodialysis therapy process needs to be carried out throughout life. Therefore, family efforts to support the patient's psychological well-being are necessary, because the family is the external factor closest to the patient. Efforts that can be made, especially in the fluid restriction compliance program, include helping to assist with dialysis, providing advice and praise, seeking information regarding side effects and symptoms, and reminding patients regarding fluid control.

Based on the explanation above, it can be concluded that there is a relationship between family support and compliance with fluid restrictions in Chronic Kidney Failure patients. Family support is part of what can increase patient compliance.

CONCLUSIONS

Based on the attitude of Chronic Kidney Failure patients undergoing hemodialysis in the hemodialysis room at Haji Hospital Jakarta, more than half, namely 47 (69.1%) people

have a good attitude. Based on family support, more than half of Chronic Kidney Failure patients undergoing hemodialysis in the hemodialysis room at Haji Hospital Jakarta, namely 49 (72.1%) people, have good family support. Based on compliance with fluid restrictions in Chronic Kidney Failure patients undergoing hemodialysis in the hemodialysis room at Haji Hospital Jakarta, more than half, namely 39 (57.4%) people had good compliance with fluid restrictions.

The results of statistical tests using chi-square show that there is a relationship between attitude and compliance with fluid restrictions in Chronic Kidney Failure patients in the hemodialysis room at Haji Hospital, Jakarta with a p value of 0.032 and show that there is a relationship between family support and compliance with fluid restrictions in Chronic Kidney Failure patients in the hemodialysis room at Haji Hospital, Jakarta with a p value of 0.033.

The recommendations for further research could be to examine compliance with fluid restrictions further, related to factors that can influence patients to comply with fluid restrictions, such as knowledge factors, duration of hemodialysis, access to health services, the role of nurses and the social culture of Chronic Kidney Failure patients. Apart from that, it is hoped that future researchers will use more specific instruments to obtain more accurate data.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

ETHICAL CLEARANCE

This research has received ethical approval from the Research Ethics Committee, Health Polytechnic of Jakarta III No. No.LB.02.02/04271/2023

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