

Self-Efficacy Of Hemodialysis Patients In Makassar

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	ABSTRACT
<p>Article Info Article History: Received: 14 October 2025 Revised: 19 December 2025 Accepted: 19 December 2025</p> <p>*Corresponding Author : abdul.majidunhas@gmail.com</p> <p>https://doi.org/10.37362/chc.v9i3.792</p> <p>P- ISSN : 2722-1563 E -ISSN : 2580-7137</p>  <p>This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License, which allows others to remix, tweak, and build upon the work non-commercially as long as the original work is properly cited. The new creations are not necessarily licensed under the identical terms</p>	<p>Background: Self-efficacy is a person's self-confidence in undergoing and facing the problems faced, including patients who are undergoing hemodialysis (HD). Physical changes in hemodialysis patients have an impact on psychological response disorders, especially self-efficacy which can affect the quality of life of hemodialysis patients (Mousa, I. et all 2018). Objective: to determine the description of self-efficacy of hemodialysis patients in Makassar City. Methods: The design used in this study is quantitative through descriptive methods. The instrument used is the chronic kidney disease self-efficacy (CKD-SE) instrument: development and psycometric evaluation that has been modified. The sample in this study amounted to 53 respondents. Results: showed that respondents who were undergoing HD in Makassar city had the most in the range of 46 to 68 years with the youngest age of 26 years and the oldest age of 72 years. Most respondents are female (54.7%) with married marital status (88.7%) and routinely undergo HD twice a week (60.4%). The description of high self-efficacy criteria amounted to (56.6%) and low criteria amounted to (43.4%) with a mean value of 78.08 ± 10.648. Conclusion and suggestion: The picture of self-efficacy of patients undergoing HD who have low problem-solving factors needs to be supported by providing education and knowledge in undergoing good hemodialysis so that it can maintain optimal quality of life during hemodialysis. Providing education and knowledge can be done by nurses or the involvement of patients who have more experience with high self-efficacy so that through further research this can be done.</p> <p>Keywords: Hemodialysis; patient; self-efficacy</p>

INTRODUCTION

Patients suffering from kidney failure experience many changes, such as physical changes, psychological changes, social and environmental changes. The impact of these changes can reduce the quality of life of patients with kidney failure. Quality of life is a condition in which a patient suffering from a disease can remain comfortable physically,

psychologically, socially and environmentally and optimally utilize his life for his happiness and the happiness of others (Levin, A., et al. 2017).

The hemodialysis process that takes 4 - 5 hours can generally cause physical stress in patients after hemodialysis. Patients feel fatigue, headache and cold sweat due to decreased blood pressure (Sakitri, Makiyah, & Khoiriyati, 2017), as well as sleep problems related to the effects of hemodialysis (Ningrum, Imardiani, & Rahma, 2017). Physical changes in hemodialysis patients have an impact on psychological response disorders, especially self-efficacy, which can affect the quality of life of hemodialysis patients (Mousa, I. et al 2018). Based on the above, the researcher is interested in examining the description of self-efficacy of hemodialysis patients in Makassar.

MATERIALS AND METHODS

The study used quantitative and descriptive-analytic survey approaches. This study identifies and analyzes the description of self-efficacy of patients undergoing hemodialysis in Makassar. The population of this study was all CKD / GGK patients undergoing hemodialysis at RSP. Hasanuddin University, RSUD. Labuang Baji & RSI Faizal as many as 53 people. The sample of this study was regular ongoing hemodialysis patients registered from 2019 to 2021 with a purposive sampling technique.

The inclusion criteria for this study were: 1) ongoing hemodialysis from 2019 to 2021 2) willingness to be a respondent, 3) filling out the questionnaire completely, 4) do not experience complications such as heart and stroke. Exclusion criteria: 1) have comorbidities of DM, heart & infection 2) not cooperative, 3) decreased consciousness, and 4) have mental disorders.

RESULTS

Based on table 1, the highest age of respondents was 46 - 68 years old (30.2%) with the youngest age of 26 years and the oldest age of 72 years. The majority of respondents are female (54.7%), and Muslim (92.5%). With educational background, occupation and marital status, respectively, the most recent education is high school (34%), housewife (IRT) (39.6%) with married status (88.7%).

The average length of time respondents underwent HD was 128 days with a range of 1 to 468 days. The largest length of HD time was < 1 year (43.4%). The average frequency of respondents undergoing HD was 239 times with a range of 2 to 1008 times. The largest frequency of HD that has been carried out by respondents is 2x a week (60.4%).

Table 1. Distribution of Respondent Characteristics Undergoing Hemodialysis at the Makassar Hemodialysis Unit (RSUD Labuang Baji, RS Islam Faizal dan RSPTN UNHAS) (n = 53)

Characteristic	Frequency (n)	Percentage (%)	Mean	Std. Deviasi	Min-Max
Age (Years)			54	11.974	26-72
26-35 Years	4	7.5			
36-45 Years	7	13.2			
46-55 Years	16	30.2			
56-65 Years	14	26.4			
> 66 Years	12	22.5			
Gender					
Male	24	45.3			
Female	29	54.7			
Religion					
Islam	49	92.5			
Kristen	2	3.8			
Katolik	2	3.8			
Education					
Elementary School	9	17.0			
Junior High School	5	9.4			
Senior High School	18	34.0			
Diploma	4	7.5			
Bachelor	15	28.3			
No School	2	3.8			
Work					
Housewives	21	39.6			
Laborers	1	1.9			
Self-Employed	3	5.7			
Civil Servants	4	7.5			
Private Sector Workers	4	7.5			
Others	20	37.7			
Marital Status					
Married	47	88.7			
Widowed	1	1.9			
Unmarried	5	9.4			
Duration of HD					
< 1 Years	23	43.4			
1 Years	2	3.8			
2 Years	10	18.9			
3 Years	3	5.7			
4 Years	0	0			
5 Years	7	13.2			
> 5 Years	8	15.1			
Frequency HD					
2 x a week	32	60.4			
3 x a week	21	39.6			

Based on table 2, it is obtained that the respondents' self-efficacy description of the autonomy factor and the self-integrity factor are the same high criteria as (52.8%) and the same low criteria as (47.2%) with an average value of 25.25 ± 4.210 and 21.55 ± 4.713 . while the problem solving factor obtained low criteria of (56.6%) and high criteria of (34%) with an average value of 14.96 ± 1.568 . Social support factors high criteria amounted to (66%) and low criteria amounted to (34%) with an average value of 14.96 ± 1.568 . while the problem solving factor obtained low criteria amounted to (56.6%) and

high criteria amounted to (43.4%) with an average value of 16.32 ± 4.349 . The total self-efficacy picture of high criteria amounted to (56.6%) and low criteria amounted to (43.4%) with an average value of 78.08 ± 10.648 .

Tabel 2 . Distribution of Respondent Characteristics Undergoing Hemodialysis at the Makassar Hemodialysis Unit (RSUD Labuang Baji, RS Islam Faizal dan RSPTN UNHAS) (n =53)

Variable	Frequency (n)	Percentage (%)	Mean	Std. Deviasi	Min-Max
<i>Self Efficacy</i> Autonomy Factor			25.25	4.210	15-32
High	28	52.8			
Low	25	47.2			
<i>Self Efficacy</i> Self-Integrity Factor			21.55	4.713	9-28
High	28	52.8			
Low	25	47.2			
<i>Self Efficacy</i> Problem Solving Factors			16.32	4.349	6-24
High	23	43.4			
Low	30	56.6			
<i>Self Efficacy</i> Social Support Factors			14.96	1.568	10-16
High	35	66.0			
Low	18	34.0			
Total <i>Self Efficacy</i>			78.08	10.648	53-98
High	30	56.6			
Low	23	43.4			

Based on Table 3, it can be identified that respondents aged 46 - 68 years have self-efficacy for the self-integrity factor with high criteria, there are 6 respondents or (11.3%) and low criteria, there are 10 respondents or (18.9%). Respondents with female gender have self-efficacy factor problem solving with high criteria there are 13 respondents or equal to (24.5%) and low criteria there are 16 respondents or equal to (30.2%). In respondents who embrace Islam, the self-efficacy of problem solving factors with high criteria is obtained by 21 respondents or equal to (39.6%) and low criteria are 28 respondents or equal to (58.8%). At the high school education level, the self-efficacy of problem solving factors with high criteria was obtained by 6 respondents or by (11.3%) and low criteria were 12 respondents or by (22.6%).

Respondents who have jobs as housewives (IRT) obtained self-efficacy factor integrity with high criteria, there are 10 respondents or equal to (18.9%) and low criteria there are 11 respondents or equal to (20.8%). In addition, in the self-efficacy of problem solving factors with high criteria, there were 7 respondents or 13.2% and low criteria, 14 respondents or 26.4%. Respondents with married status obtained self-efficacy of problem solving factors with high criteria there were 20 respondents or equal to (37.7%) and low criteria there were 27 respondents or equal to (50.9%). Respondents who underwent HD < 1 year had self-efficacy of problem solving factors with high criteria, there were 10 respondents or (18.9%) and low criteria were 13 respondents or (56.5%). Whereas for

respondents who undergo hemodialysis 2x a week have self-efficacy problem solving factors with high criteria, there are 14 respondents or equal to (26.4%) and low criteria there are 18 respondents or equal to (34%)

Tabel 3. Distribution of Self-Efficacy Based on the Characteristics of Respondents Undergoing Hemodialysis at the Makassar Hemodialysis Unit (RSUD Labuang Baji, RS Islam Faizal dan RSPTN UNHAS) (n = 53)

Respondent Characteristics	<i>Self Efficacy</i>										
	n (%)	Otonomi		Integritas Diri		Pemecahan Masalah		Dukungan Sosial		Total	
		Tinggi	Rendah	Tinggi	Rendah	Tinggi	Rendah	Tinggi	Rendah	Tinggi	Rendah
Age											
26-35 Years	4 (7.5)	0 (0.0)	4 (7.5)	2 (3.8)	2 (3.8)	2 (3.8)	2 (3.8)	2 (3.8)	2 (3.8)	2 (3.8)	2 (3.8)
36-45 Years	7 (13.2)	3 (5.7)	4 (7.5)	4 (7.5)	3 (5.7)	2 (3.8)	5 (9.4)	2 (3.8)	5 (9.4)	4 (57.1)	3 (42.9)
46-55 Years	16 (30.2)	8 (15.1)	8 (15.1)	6 (11.3)	10 (18.9)	9 (17.0)	7 (13.2)	12 (22.6)	4 (7.5)	10 (62.5)	6 (37.5)
56-65 Years	14 (26.4)	8 (15.1)	6 (11.3)	7 (13.2)	7 (13.2)	6 (11.3)	8 (15.1)	11 (20.8)	3 (5.7)	7 (50.0)	7 (50.0)
> 66 Years	12 (22.6)	9 (17.0)	3 (5.7)	9 (17.0)	3 (5.7)	4 (7.5)	8 (15.1)	8 (15.1)	4 (7.5)	7 (58.3)	5 (41.7)
Gender											
Male	24 (25.3)	13 (24.5)	11 (20.8)	13 (24.5)	11 (20.8)	10 (18.9)	14 (26.4)	15 (28.3)	9 (17.0)	11 (20.8)	13 (24.5)
Female	29 (54.7)	15 (28.3)	14 (26.4)	15 (28.3)	14 (26.4)	13 (24.5)	16 (30.2)	20 (37.7)	9 (17.0)	19 (35.8)	10 (18.9)
Religion											
Islam	49 (92.5)	26 (49.1)	23 (46.9)	25 (47.2)	24 (45.3)	21 (39.6)	28 (52.8)	34 (64.2)	15 (28.3)	27 (50.9)	22 (41.5)
Kristen	2 (3.8)	1 (1.9)	1 (1.9)	1 (1.9)	1 (1.9)	1 (1.9)	1 (1.9)	0 (0.0)	2 (3.8)	1 (1.9)	1 (1.9)
Katolik	2 (3.8)	1 (1.9)	1 (1.9)	2 (3.8)	0 (0.0)	1 (1.9)	1 (1.9)	1 (1.9)	1 (1.9)	2 (3.8)	0 (0.0)
Education											
Elementary School	9 (17.0)	2 (3.8)	7 (13.2)	4 (7.5)	5 (9.4)	4 (7.5)	5 (9.4)	8 (15.1)	1 (1.9)	4 (7.5)	5 (9.4)
Junior High School	5 (9.4)	4 (7.5)	1 (1.9)	4 (7.5)	1 (1.9)	2 (3.8)	3 (5.7)	3 (5.7)	2 (3.8)	4 (7.5)	1 (1.9)
Senior High School	18 (34.0)	12 (22.6)	6 (11.3)	9 (17.0)	9 (17.0)	6 (11.3)	12 (22.6)	12 (22.6)	6 (11.3)	11 (20.8)	7 (13.2)
Diploma	4 (7.5)	3 (5.7)	1 (1.9)	3 (5.7)	1 (1.9)	3 (5.7)	1 (1.9)	2 (3.8)	2 (3.8)	3 (5.7)	1 (1.9)
Bachelor	15 (28.3)	6 (11.3)	9 (17.0)	7 (13.2)	8 (15.1)	8 (15.1)	7 (13.2)	8 (15.1)	7 (13.2)	8 (15.1)	7 (13.2)
No School	2 (3.8)	1 (1.9)	1 (1.9)	1 (1.9)	1 (1.9)	0 (0.0)	2 (3.8)	2 (3.8)	0 (0.0)	0 (0.0)	2 (3.8)
Work											
Housewives	21 (39.6)	12 (22.6)	9 (17.0)	10 (18.9)	11 (20.8)	7 (13.2)	14 (26.4)	14 (26.4)	7 (13.2)	13 (24.5)	8 (15.1)

Laborers	1 (1.9)	0 (0.0)	1 (1.9)	0 (0.0)	1 (1.9)	1 (1.9)	0 (0.0)	1 (1.9)	0 (0.0)	0 (0.0)	1 (1.9)
Self-Employed	3 (5.7)	1 (1.9)	2 (3.8)	2 (3.8)	1 (1.9)	1 (1.9)	2 (3.8)	1 (1.9)	2 (3.8)	1 (1.9)	2 (3.8)
Civil Servants	4 (7.5)	1 (1.9)	3 (5.7)	1 (1.9)	3 (5.7)	2 (3.8)	2 (3.8)	3 (5.7)	1 (1.9)	2 (3.8)	2 (3.8)
Private Sector Workers	4 (7.5)	3 (5.7)	1 (1.9)	4 (7.5)	0 (0.0)	4 (7.5)	0 (0.0)	3 (5.7)	1 (1.9)	4 (7.5)	0 (0.0)
Others	20 (37.7)	11 (20.8)	9 (17.0)	11 (20.8)	9 (17.0)	8 (15.1)	12 (22.6)	13 (24.5)	7 (13.2)	10 (18.9)	10 (18.9)
Marital Status											
Married	47 (88.7)	27 (50.9)	20 (37.7)	24 (45.3)	23 (43.4)	20 (37.7)	27 (50.9)	31 (58.5)	16 (30.2)	27 (50.9)	20 (37.7)
Widowed	1 (1.9)	0 (0.0)	1 (1.9)	1 (1.9)	0 (0.0)	0 (0.0)	1 (1.9)	1 (1.9)	0 (0.0)	1 (1.9)	0 (0.0)
Unmarried	5 (9.4)	1 (1.9)	4 (7.5)	3 (5.7)	2 (3.8)	3 (5.7)	2 (3.8)	3 (5.7)	2 (3.8)	2 (3.8)	3 (5.7)
Duration of HD											
< 1 Years	23 (43.4)	12 (22.6)	11 (47.8)	13 (24.5)	10 (18.9)	10 (18.9)	13 (56.5)	13 (24.5)	10 (18.9)	14 (26.4)	9 (17.0)
1 Years	2 (3.8)	1 (1.9)	1 (1.9)	0 (0.0)	2 (3.8)	0 (0.0)	2 (100)	1 (1.9)	1 (1.9)	1 (1.9)	1 (1.9)
2 Years	10 (18.9)	5 (9.4)	5 (1.9)	5 (9.4)	5 (9.4)	4 (7.5)	6 (60.0)	9 (17.0)	1 (1.9)	7 (13.2)	3 (5.7)
3 Years	3 (5.7)	2 (3.8)	1 (1.9)	1 (1.9)	2 (3.8)	3 (5.7)	0 (0.0)	3 (5.7)	0 (0.0)	2 (3.8)	1 (1.9)
4 Years	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
5 Years	7 (13.2)	4 (7.5)	3 (5.7)	4 (7.5)	3 (5.7)	2 (3.8)	5 (71.4)	2 (3.8)	5 (9.4)	3 (5.7)	4 (7.5)
> 5 Years	8 (15.1)	4 (50.0)	4 (50.0)	5 (62.5)	3 (37.5)	4 (7.5)	4 (50.0)	7 (13.2)	1 (1.9)	3 (5.7)	5 (9.4)
Frequency HD											
2 x a week	32 (60.4)	16 (30.2)	16 (30.2)	19 (35.8)	13 (24.5)	14 (26.4)	18 (34.0)	24 (45.3)	8 (15.1)	20 (37.7)	12 (22.6)
3 x a week	21 (39.6)	12 (22.6)	9 (17.0)	9 (17.0)	12 (22.6)	9 (17.0)	12 (22.6)	11 (20.8)	10 (18.9)	10 (18.9)	11 (20.8)

DISCUSSION

The description of respondents' self-efficacy on social support factors has a greater value based on high criteria of (66%) or as many as 35 respondents and low criteria of (34%) or as many as 18 respondents. Research in Iran revealed that family involvement in the care of HD patients can increase patient self-efficacy (El-Melegy et al., 2016). Research in Semarang explained that self-efficacy and social support are factors that can contribute to compliance with HD in patients with GJK (Eny Wulandari, Medina Sianturi, 2017). Research in Bali also shows that social support and self-efficacy have an influence on the capacity of respondents' ability to accept, face and transform the problems faced in undergoing HD (Pradnyaswari & Rustika, 2020). This shows that social support is the most important aspect for respondents.

The description of respondents' self-efficacy in the problem solving factor obtained low criteria (56.6%) and high criteria (43.4%). A study conducted in Bekasi revealed that there is a significant relationship between patient self-efficacy and the ability to care for themselves undergoing HD through the problem-solving process and their knowledge (P. Astuti & Herawati, 2019). This is in line with research in Norway which says that the patient's level of knowledge affects the patient's ability to participate in care and treatment while undergoing HD so that better self-control is obtained when facing problems while undergoing HD (Aasen, 2015). The high presentation of this low criterion which was obtained by (56.6%) 30 respondents compared to the high criterion of (43.4%) with a total of 23 respondents shows that the level of knowledge possessed by the average respondent is at the high school level, this indicates that in the decision-making process respondents feel the need to know more information related to treatment while undergoing HD and the length of the respondent's exposure to information that is important for them to undergo during HD. This is evidenced by the high presentation of the number of respondents who underwent HD with an average length of time the respondents underwent HD of 128 days with a range of 1 to 468 days. The largest length of HD time was < 1 year (43.4%).

Based on Kavoussi's research in 2011 which said that educational status affects the ability to understand and carry out hemodialysis for patients with kidney

failure. With increased knowledge, the rate of compliance with undergoing hemodialysis will also increase (Kavoussi, 2011). This also supports research by Jannah, Haryanto, and Kartini, (2020) which explains that self-efficacy is formed through the learning process that individuals can receive at the formal education level. Individuals with higher levels of education usually have higher self-efficacy as well, because basically they learn more and receive more formal education. In addition, individuals who have a higher level of education will have more opportunities to learn in overcoming problems in their lives.

Rezky (2018) states that education is a process to assist individuals in developing their abilities so that individuals can learn to improve awareness and increase knowledge and skills for their health. According to Ningsih (2018) that self-efficacy can also help individuals to determine what to do with the knowledge and skills they have. Self-efficacy contributes to a better understanding in the process of changing health behavior so that it is very important to increase one's knowledge (Amila, 2018).

The description of self-efficacy in respondents who have undergone HD > 5 years with high criteria there are 3 respondents or equal to (5.7%) and low criteria there are 5 respondents or equal to (9.4%). It is different with respondents who have undergone HD < 1 year, namely with high criteria there are 14 respondents or equal to (26.4%) and low criteria there are 9 respondents or equal to (17%). Research in Turkey says that a longer duration of HD is associated with a decreased risk of non-adherence to treatment. This is because patients evaluate the effects of dialysis on their bodies and learn to overcome their complications by discussing with other patients and health workers (Ghimire et al., 2015). This finding is consistent with the findings of Allen, Wainwright, and Hutchinson (2011) who said that many patients reported that they were informed about the management of their disease through observation during HD treatment and by talking with care staff and other patients so that they felt they knew more about their complaints and gave them better autonomy.

Another study also revealed that self-efficacy is very influential on the patient's ability to adapt to stress while undergoing hemodialysis so that patients can get through the process while still feeling safe and comfortable (Wahyuni et al.,

2019). In line with this research, a study also revealed that the self-efficacy program not only increases compliance with the hemodialysis process but also has an effect on increasing drug and fluid compliance in patients with chronic renal failure (Pratiwi, 2017). In addition, the stronger the patient's self-efficacy, the lower the anxiety level. So that they are able to make peace with their illness and are willing to undergo HD obediently (Hasanah et al., 2017). This is what happened to respondents who had undergone HD < 1 year with > 5 years seen based on the description of self-efficacy.

CONCLUSION

The picture of self-efficacy of patients undergoing HD who have low problem-solving factors needs to be supported by providing education and knowledge in undergoing good HD so that they can maintain optimal quality of life during HD. Providing education and knowledge can be done by nurses or the involvement of patients who have more experience with high self-efficacy so that through further research this can be done.

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