ARTÍCULO ORIGINAL

Gac Méd Caracas 2022;130(Supl 5):S905-S912
DOI: 10.47307/GMC.2022.130.s5.7

Correlation of self-efficacy and self-management among patients undergoing hemodialysis with intradialytic hypertension complications

Correlación de autoeficacia y automanejo entre pacientes en hemodiálisis con complicaciones hipertensivas intradiálisis

Dhian Luluh Rohmawati[1a]*, Nymas Khoriah Fadhlika[2a], Rony Tri Hantoro[3b]

SUMMARY

Introduction: *Intradialytic hypertension (IDH) is a phenomenon in which blood pressure increases during hemodialysis. Increased awareness and thorough understanding of the complications associated with intradialytic are needed in managing the disease independently. In addition, self-efficacy can support self-management behaviour. This study aimed to analyze the relationship between self-efficacy and self-management of hemodialysis patients who had complications of intradialytic hypertension.*
Methods: *This research uses an analytical survey method with a cross-sectional approach. The sample uses purposive sampling with a sample of 40 hemodialysis patients who had complications of intradialytic hypertension. The data collection tools included the patient's demographic characteristics, a self-management questionnaire, and a self-efficacy questionnaire. Data were analyzed using Spearman Rank with a 95 % confidence level.*
Results: *The characteristics of the respondents in this study were balanced between men and women, aged between 40-59 years, with high school education level, the majority work, and hemodialysis (HD) duration > 12 months. The results showed that there was a significant relationship between self-efficacy and self-management of hemodialysis patients who had complications of intradialytic hypertension (p-value=0,04).*
Conclusion: *There is a weak and positive relationship between self-efficacy and self-management in hemodialysis patients with complications of intradialytic hypertension. Based on the results, it is recommended to conduct research with bigger sample size and represent various settings.*

DOI: https://doi.org/10.47307/GMC.2022.130.s5.7

ORCID ID: 0000-0001-8058-5026[1]
ORCID ID: 0000-0002-8774-586X[2]
ORCID ID: 0000-0001-7613-357X[3]

[a]Akademi Keperawatan Pemerintah Kabupaten Ngawi, East Java, Indonesia
[b]Dr. Soeroto Ngawi Regional Hospital, East Java, Indonesia

*Corresponding author: Dhian Luluh Rohmawati
E-mail: dhian.luluh@gmail.com

Recibido: 11 de septiembre 2022
Aceptado: 4 de octubre 2022

Keywords: *Hemodialysis, Intradialytic Hypertension, Self-Efficacy, Self-Management*

RESUMEN

Introducción: *La hipertensión intradiálisis (HID) es un fenómeno en el cual la presión arterial aumenta durante la hemodiálisis. Se necesita una mayor conciencia y una comprensión profunda de las complicaciones asociadas con la intradiálisis para manejar la enfermedad de forma independiente. Además, la autoeficacia puede apoyar el comportamiento de autogestión. Este estudio tuvo como objetivo analizar*

la relación entre la autoeficacia y el automanejo de pacientes en hemodiálisis que presentaron complicaciones de la hipertensión intradiálisis.
Métodos: *Esta investigación utiliza un método de encuesta analítica con un enfoque transversal. La muestra utiliza un muestreo intencional con una muestra de 40 pacientes en hemodiálisis que presentaron complicaciones de la hipertensión intradiálisis. Las herramientas de recolección de datos incluyeron las características demográficas del paciente, un cuestionario de automanejo y un cuestionario de autoeficacia. Los datos se analizaron utilizando Spearman Rank con un nivel de confianza del 95 %.*
Resultados: *Las características de los encuestados en este estudio fueron equilibradas entre hombres y mujeres, con edad entre 40-59 años, nivel educativo medio, mayoría trabajadores y duración de hemodiálisis (HD) > 12 meses. Los resultados mostraron que hubo una relación significativa entre la autoeficacia y el automanejo de los pacientes en hemodiálisis que presentaron complicaciones de la hipertensión intradiálisis (p-valor=0,04).*
Conclusión: *Existe una relación débil y positiva entre la autoeficacia y el automanejo en pacientes en hemodiálisis con complicaciones de la hipertensión intradiálisis. Con base en los resultados del estudio, se recomienda realizar una investigación con un tamaño de muestra más grande y que represente varios entornos.*

Palabras clave: *Hemodiálisis, hipertensión intradiálisis, autoeficacia, automanejo*

INTRODUCTION

Chronic kidney disease (CKD) is a significant disease and often appears as a major public health problem that raises a patient's risk of developing several life-threatening medical conditions (1). The common treatment of advanced CKD is hemodialysis (2-4). Hemodialysis is one of the safest renal replacement therapies in patients with terminal renal failure, and the wide accessibility of this therapy has extended the patient's life. However, this therapy also causes several complications during dialysis, including hypertension, hypotension, muscle cramps, nausea, and vomiting (1,5-8).

Intradialytic hypertension occurs in 5-20 % of hemodialysis procedures (9). According to a study conducted by Buren in a retrospective cohort study, the prevalence of intradialytic hypertension was 21.3 per 100 dialysis procedures (10). Several studies in Indonesia show that the incidence of intradialytic hypertension is a complication that often occurs in some patients. For example, research in Denpasar showed that the incidence of IDH was 32.1 % (11). According to data from the Indonesian Renal Registry, the most common hemodialysis complication is intradialytic hypertension 38 % (12).

Intradialytic hypertension is a persistent increase in blood pressure during hemodialysis, and blood pressure during and at the end is higher than blood pressure at the beginning of hemodialysis (13-16). The other study explained that the causes of increased intradialytic blood pressure (hypertension) were excess fluid volume, increased cardiac output, overactivity of the sympathetic nervous system, stimulation of the Renin-Angiotensin system (RAS), electrolyte changes in the dialysis process, endothelial dysfunction, erythropoietin therapy, and antihypertensive drugs during the dialysis process (13,17).

Hemodialysis patients with complications of intradialytic hypertension need to manage self-management better to improve their health. The habit of self-management plays an important role in managing chronic disease, coping management, and managing conditions caused by chronic disease by modifying lifestyle. If someone performs self-management effectively, it will increase patient satisfaction in living life. Lowering the cost of care, increasing the patient's self-confidence and independence, and improving the patient's quality of life (18-20). Good self-management also has an important role in effectively controlling blood pressure in hypertensive patients (21). Self-management is a person's ability to manage the symptoms and consequences of chronic diseases such as medication and treatment, physical activity, social activities, and lifestyle changes (22).

Self-efficacy is the basis of self-management, which will affect the confidence of hypertensive patients to make changes or adjustments in behaviour to achieve hypertension treatment goals (23). Self-efficacy is a person's belief in carrying out certain activities, including the belief to carry out activities when there are obstacles to achieving certain goals (24). Self-efficacy effectively increases hemodialysis patients'

adherence to the treatment they are undergoing. In addition, high self-efficacy will impact patients and increase the level of healing and self-confidence to improve a person's quality of life (25).

Many studies have been conducted to increase the self-efficacy of patients undergoing hemodialysis therapy. Still, no study has assessed the relationship of self-efficacy to self-management of hemodialysis patients who have complications of intradialytic hypertension. Therefore, this study aimed to analyze the relationship between self-efficacy and self-management of hemodialysis patients who experience complications of intradialytic hypertension.

METHODS

Study Design and Respondent Selection

This research is a quantitative study with a cross-sectional approach. The population of this study was all hemodialysis patients who were at one of the hospitals in East Java, Indonesia, with a total of 65 patients. This study took samples by purposive sampling, where all patients who met the inclusion and exclusion criteria were used as research samples, with a sample of 40 people. The inclusion criteria were patients who underwent minimal hemodialysis therapy once a week. In addition, the patient has a history and complications of hypertension, the patient is cooperative and can communicate well and can read and write, is aged 24-65 years, and is willing to be a respondent and sign an informed concert. Meanwhile, the exclusion criteria were that the patient had complications (diabetes mellitus, heart disease, stroke, or other terminal illnesses), the patient had trouble communicating, and was dependent on daily activities. Researchers conducted observations and filled out questionnaires directly to research respondents to collect data when patients are undergoing hemodialysis.

Instruments

This study consisted of 3 questionnaires. The first is the demographic characteristics of the patient. This section contains general information (such as age, gender, education level, occupation, and duration of hemodialysis). The second is a self-management questionnaire for hemodialysis patients, which consists of self-management at home and during hemodialysis with a total of 29 question items (26). This questionnaire is valid and reliable, with a Cronbach's Alpha value of 0.809. The self-management questionnaire to measure the self-management ability of hemodialysis patients includes two types of questionnaires: a self-management questionnaire for hemodialysis patients at home and a self-management questionnaire for hemodialysis patients during dialysis. In the self-management questionnaire for hemodialysis patients at home, there are 20 question items, namely numbers 1 - 20. Types of self-management questionnaires for hemodialysis patients during dialysis have 9 question items, namely numbers 21 - 29. The total number of questionnaire questions is 29 pieces, and each has four answer choices with a score of 1 to 4.

The third is a self-efficacy questionnaire consisting of 25 question items (27). Self-efficacy questionnaire to measure the self-efficacy ability of hemodialysis patients, covering four domains: autonomy, self-integration, problem-solving, and seeking social support. In the autonomy domain, there are 8 question items, namely questions number 1 - 8. The self-integration domain has 7 question items, namely numbers 9 - 15. The problem-solving domain has 6 question items, namely questions number 16 - 21. The domain for seeking social support has 4 question items, namely questions number 22 - 25. The total number of questionnaire questions is 25, and each has four answer options with a score of 1 to 4. The validity test on the self-efficacy questionnaire with a total of 25 questions is declared entirely "valid" with a Pearson correlation value > 0 .5 (0.59 - 0.91).

Ethical Considerations

The Sekolah Tinggi Ilmu Kesehatan Pemerintah Kabupaten Jombang No. 0522060004/KEPK/STIKES-PEMKAB/JBG/VI/2022 has granted an ethical license for this study. In addition, the hospital administration has also

permitted the collection of the data. Prospective respondents get an explanation regarding the aims and objectives of this research. Respondents were informed that their participation in the study was voluntary, and they could withdraw from the study at any time, and it would not affect their subsequent treatment. The results of respondents' answers are also guaranteed privacy and confidentiality. Before collecting data, respondents must sign an informed concert sheet first.

Statistical Analysis for Data

Data has been recorded, classified, tabulated, and processed using a personal computer and analyzed using IBM SPSS software version 23.0. Univariate analysis was conducted to determine the frequency and percentage distribution of respondents' characteristics, self-management, and blood pressure before dialysis. This data is presented in numbers and percentages. The results are said to be significant with a p-value<0.05. Analysis of bivariate test using Pearson Correlation.

RESULTS

A total of 40 patients met the inclusion criteria. The demographic characteristics of the participants are described in Table 1. The characteristics of respondents who experienced complications of intradialytic hypertension in this study were categorized: gender, age, education level, occupation status, and time using dialysis therapy. Half of this study's participants were males (50 %). Most patients were 41-60 years (55 %). The highest education level was high school (42.5 %). Most of the patients were currently working (55 %). In addition, 77.5 % reported having been on dialysis for > 12 months.

Table 2 showed the mean total self-efficacy score was 83.60±12.09. Table 2 shows the mean score for each subscale: autonomy (29.28±4.35), self-integration (19.45±4.81), problem-solving (17.88±4.26), and seeking social support (14.80±2.29). In addition, the mean self-management score was 79.78±8.79. The mean score for each subscale: self-management at home (50.15 ± 4.57) and self-management during HD (26.83±4.99).

Table 3 shows the correlation between self-efficacy and self-management scores by using Pearson's correlation. There was a moderate positive correlation between self-efficacy and self-management (r=0.322, p<0.05). Besides that, the correlation for each subscale of self-efficacy: autonomy (r=0.049, p>0.05), self-integration

Table 1

Characteristics of the study population (n=40)

Variable	N	%
Gender		
Man	20	50
Woman	20	50
Age (year)		
18-40	7	17.5
41-60	22	55
>60	11	27.5
Education Level		
No school	2	5.0
Elementary school	7	17.5
Junior high school	13	32.5
Senior high school	17	42.5
College	1	2.5
Occupational status		
Unemployed	18	45
Employee	22	55
Time using dialysis therapy		
0-12 months	9	22.5
>12 months	31	77.5

Table 2

Descriptive statistics of self-efficacy and self-management, n=40

Subscale	Mean (SD)	Median	Min-Max	95 % CI
Autonomy	29.28(4.35)	31	17-32	27.88-30.67
Self-integration	19.45(4.81)	19.50	10-28	17.91-20.99
Problem-solving	17.88(4.26)	20	8-23	16.51-19.24
Seeking social support	14.80(2.29)	16	9-16	14.07-15.53
Total score for Self-efficacy	83.60(12.09)	89	52-97	79.73-87.47
Self-management at home	50.15(4.57)	52.50	41-57	48.69-51.61
Self-management during HD	26.83(4.99)	28	17-34	25.23-28.42
Total score for self-management	79.78(7.89)	81.50	60-91	77.25-82.30

Table 3

Correlation between self-efficacy and self-management

Variable (subscale)	Self-management score	p-value
Autonomy	0.049	0.76
Self-integration	0.399	0.01*
Problem-solving	0.143	0.38
Seeking social support	0.201	0.21
The total score of Self-efficacy	0.322	0.04*

Correlation is significant at P value < 0.05
*p-value<0.05

(r=0.399, p<0.05), problem-solving (r=0.143, p> 0.05), and seeking social support (r=0.201, p>0.05).

DISCUSSION

Respondents who underwent HD with complications of intradialytic hypertension were mostly middle-aged, between 41 and 60. Age factors can affect the increase in blood pressure (hypertension) during intradialytic. The majority of several studies explain that age and gender affect increasing intradialytic blood pressure. According to research conducted by Inrig (2010) that most hemodialysis patients who experience intradialytic hypertension are >60 years old (28). This is supported by the research of Dubin et al. (2011) that increasing age is associated with an increase in the prevalence of intradialytic hypertension (p=0.03) (29). However, there is research conducted by Lolyta and Solechan (2012) that age has no significant effect on intradialytic hypertension (p>0.05) (30). According to a study by Inrig et al. in 32 295 patients, the incidence of IDH was higher at a late age. Nilrohit et al. (2017) also found that IDH was more common at a late age but was not statistically significant (31). The majority of respondents with high school education levels. This is associated with high socioeconomic conditions, resulting in the food consumed by the patient containing a lot of high fat, high cholesterol, smoking habits, and drinking alcohol are risk factors for causing metabolic diseases such as hypertension and diabetes. More than half of patients with HID are also working. This can be related to stress at work, so it can increase a person's blood pressure when the patient experiences HID. Most respondents underwent HD for 12 months (77.5 %) which had complications of intradialytic hypertension.

Based on the results of this study, it is known that the average self-efficacy score is 83.60 (12.09). This shows that the mean self-efficacy score of respondents who experienced intradialytic hypertension was adequate. This study's results align with the research conducted by Lenggogeni et al. (2021). They explained that the self-efficacy of chronic kidney failure patients undergoing hemodialysis was moderate self-efficacy, with a mean of 72.25 (9.73) (27). Therefore, self-efficacy is very important for HD patients with complications of intradialytic hypertension. Self-efficacy is a form of individual belief in himself in acting (32). Self-efficacy is needed in HD patients to be able to do good self-management. When someone has low self-efficacy, self-management will be hampered.

On the other hand, when self-efficacy is good, self-management will also be smooth (4). This high mean score results can be due to several factors, namely self-motivation and HD duration. The patient's self-motivation is high toward healing the illness. Although some patients are sure and understand that the disease will not be cured, the patient also assumes that at least the disease does not occur further complications. The longer the patient undergoes hemodialysis therapy, the better and more obedient the patient will be because the patient gets health education or information about complications.

The results showed that the highest efficacy sub-variable was autonomy, which was 29.28 (4.35). This study's results align with other studies, where the highest efficacy sub-variable is autonomy (4,27). HD patients with IDH complications will be more alert than other HD patients. Patients must be able to overcome the limitations caused by HD so that HD patients have high autonomy to overcome the limitations caused by dialysis. This condition will cause the patient to ask questions and seek information from health workers (doctors and nurses) about the disease and the actions that must be taken. In addition, patients also experience changes in their daily lives, and patients cannot do ADL and

worry about work, marital status, and others. This change causes patients to be interested in knowing all about hemodialysis.

Self-management of hemodialysis patients with complications of intradialytic hypertension has a higher mean of 79.78 (7.89). This is to research conducted by Purba et al. (2018) that the patient's self-management showed a good category (33). In this study, self-management in HD patients with complications of IDH can be caused because patients often get information from health workers about their conditions and how to overcome them. This knowledge is considered to foster self-confidence, self-efficacy, and patient compliance, especially in making decisions to carry out self-management. Most of the patients had HD for 12 months. Therefore, in the first six months of undergoing HD, patients will gain knowledge that can improve the implementation of self-care management.

Self-management is the ability of individuals, families, or communities to promote health, prevent disease, maintain health and cope with illness and disability with or without support from health professionals. Self-management in hemodialysis patients with complications of intradialytic hypertension is a positive effort for patients to participate in their health care to optimize health, prevent complications, control signs and symptoms, follow treatment, and minimize the effects of the disease in their lives. Self-management that hemodialysis patients must carry out includes fistula treatment, activity, diet, and monitoring of body weight and blood pressure. In addition, hemodialysis patients should reduce fluid intake to control body weight and blood pressure. In addition, hemodialysis patients must adhere to hemodialysis and take drugs (34).

This study's results indicate a positive and significant correlation between self-efficacy and self-management in HD patients with complications of intradialytic hypertension. This is in line with research conducted by Li et al. (2014), who also showed that self-efficacy positively correlates with self-management in patients undergoing hemodialysis (35). The results showed that low self-efficacy was associated with non-adherence in patients undergoing hemodialysis treatment. In other words, someone with high self-efficacy will have good self-management and vice versa. Self-efficacy is important for successful self-management in hemodialysis patients (36). Increased self-efficacy can improve self-management. Self-efficacy is a strategy to improve self-management behaviour, especially for vulnerable and diverse populations. Self-efficacy will provide a form of description of the behaviour carried out related to self-management. Self-efficacy was also noted as a suitable component for improving self-management for various chronic conditions.

CONCLUSION

Most of the respondents have good self-efficacy and self-management. Self-efficacy has a weak and positive relationship with self-management of hemodialysis patients with complications of intradialytic hypertension. There is a significant relationship between self-efficacy and self-management among hemodialysis patients with intradialytic hypertension complications. Based on the research findings, researchers suggest that services are improved must make a health program related to hemodialysis regularly every month, especially to increase the self-efficacy of hemodialysis patients who experience intradialytic hypertension, such as sharing from experts about how to maintain their health and telling personal experiences of someone with the same complication. The clinical implication of this study is that special medical attention should be given to older and newly diagnosed End-Stage Renal Disease (ESRD) patients with low levels of education. This is expected to increase self-efficacy so that patient self-management will also increase.

CONFLICTS OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

1. Sukartini T, Efendi F, Putri NS. A phenomenological study to explore patient experience of fluid and dietary restrictions imposed by hemodialysis. J Vasc Nurs. 2022;40(2):105-111.
2. Lai P, Wu SV, Alizargar J, Pranata S, Tsai J, Hsieh N. Factors Influencing Self-Efficacy and Self-Management among Patients with Pre-End-Stage Renal Disease (Pre-ESRD). 2021:1-12.
3. Lukela JR, Harrison RV, Jimbo M, Mahallati A, Saran R, Annie Z. Management of Chronic Kidney Disease Key points. UMHS Chronic Kidney Dis Guidel. 2019;(July):1-27.
4. Mahmoud S, AbdElaziz NA. Association between Health Locus of Control, Self-care and Self-efficacy in Patients with End Stage Renal Disease Undergoing Hemodialysis. Life Sci J. 2015;12(11):58-72.
5. Mandal AK, Prakash J. Textbook of nephrology. New Delhi: Jaypee Brothers Medical Publishers; 2014.
6. Rocco M, Daugirdas JT, Depner TA, Inrig J, Mehrotra R, Rocco M V, et al. KDOQI Clinical Practice Guideline for Hemodialysis Adequacy: 2015 Update. Am J Kidney Dis. 2015;66(5):884-930.
7. Kidney C, Guideline D, Up F, Clinical A, Oversight G. Management of Chronic Kidney Disease Objectives : Key points. 2014;(March).
8. Habas E. Common Complications during Hemodialysis Session; Single Central Experience. Austin J Nephrol Hypertens. 2019;6(1).
9. Assimon MM, Wang L, Flythe JE. Intradialytic Hypertension Frequency and Short-Term Clinical Outcomes Among Individuals Receiving Maintenance Hemodialysis. 2018;31:329-339.
10. Buren PN Van, Toto R, Inrig JK. The prevalence of persistent intradialytic hypertension in a hemodialysis population with extended follow-up. 2012;(December 2017).
11. Kandarini Y. The role of ultrafiltration in intradialytic hypertension and its relationship to changes in levels of: endothelin-1, asymmetric dimethylarginin and nitric oxide. Airlangga University; 2012.
12. PERNEFRI. 11th report of Indonesian renal registry 2018. Indones Ren Regist. 2018:14-15.
13. Chazot C, Jean G. Intradialytic hypertension: It is time to act. Nephron - Clin Pract. 2010;115(3).
14. Suryantoro SD, Ardhany AR, Basoeki W, Thaha M, Mardiana N, Tjempakasari A, et al. Dietary management of haemodialysis patients with chronic kidney disease and malnourishment. Asia Pac J Clin Nutr. 2021;30(4):579-587.
15. Sitoresmi H, Irwan AM, Sjattar EL, Usman S. The effect of foot massage in lowering intradialytic blood pressure at Hemodialysis Unit in Indonesian Hospital. Clin Epidemiol Glob Heal. 2020;8(4):1272-1276.
16. Irwindi YA, Ni'mah L, Efendi F. The effect of range of motion exercise on blood pressure, pulse and sleep quality among hypertensive patients. Int J Innov Creat Chang. 2020;13(6):220-234.
17. Inrig JK, Van Buren P, Kim C, Vongpatanasin W, Povsic TJ, Toto RD. Intradialytic hypertension and its association with endothelial cell dysfunction. Clin J Am Soc Nephrol. 2011;6(8):2016-2024.
18. Patmawati, Yunding J, Harli K, Amin M. Hubungan Self-Efficacy Dengan Self-Management Behaviour pada Pasien Hipertensi. J Heal Educ Lit. 2021;4(1):2714-7827.
19. Martono M, Satino S. Severity renal function detection through critical changes glomerular filtration rate in hemodialysis patients. J Ners. 2014;9(1):43-48.
20. Pakaya RE, Syam Y, Syahrul S. Correlation of self-efficacy and self-care of patients undergoing hemodialysis with their quality of life. Enfermería Clínica. 2021;31:S797-801.
21. Balaga PA. Self-efficacy and self-care management outcome of chronic renal failure patients. Asian J Heal. 2012;2(1):111-129.
22. Peñarrieta MI, Flores-Barrios F, Gutiérrez-Gómez T, Piñones-Martínez S, Resendiz-Gonzalez E, Quintero, María-Valle L. Self-management and family support in chronic diseases. J Nurs Educ Pract. 2015;5(11):73.
23. Adanza JR. Self-efficacy and self-care management outcome of chronic renal failure patients. Int J Res Soc Sci. 2015;5(2):346.
24. Kauric-Klein Z, Peters RM, Yarandi HN. Self-Efficacy and Blood Pressure Self-Care Behaviors in Patients on Chronic Hemodialysis. West J Nurs Res. 2016;39(7):886-905.
25. Ayunarwanti R, Maliya A. Self-Efficacy Terhadap Hipertensi Intradialis Pada Pasien Gagal Ginjal. J Ber Ilmu Keperawatan. 2020;13(1):54-61.
26. Simanjuntak EYB, Lombu TK. Self Management Related to Quality of Life of Chronic Kidney Failure Patients Undergoing Hemodialysis. J Community Health and the Environment. 2018;4002:1-9.
27. Lenggogeni DP, Malini H, Fatmadona R, Roza ES. Overview of Patient Self-Efficacy Undergoing Hemodialysis. J Ilm Batanghari Univ Jambi. 2021;21(1):434.
28. Inrig JK. Intradialytic Hypertension: A Less-Recognized Cardiovascular Complication of Hemodialysis. Amer J Kidney Diseases. 2010.
29. Dubin R, Owens C, Gasper W, Ganz P, Johansen K. Associations of endothelial dysfunction and

arterial stiffness with intradialytic hypotension and hypertension. Hemodial Int. 2011;15(3):350-358.

30. Lolyta R, Solechan A. Analysis of factors influencing hemodialysis blood pressure in clients with Chronic Kidney Failure (case study at Telogorejo Hospital, Semarang). J Nursing and Midwifery. 2012.
31. Nilrohit PB, Nilesh BR, Ajeya UN, Kshitija GG, Sudhir KG. Article History Citation Study of Intradialytic Hypertension: A Single Centre Analysis. Nephrol Open J. 2017; SE(2):1-6.
32. Bandura A. Self Efficacy – The Exercise of Control. New York: W.H. Freeman & Company; 1997.
33. Purba AK, Emaliyawati E, Sriati A. Self-Management and Self-Efficacy in Hemodialysis Patients. JNC. 2018;1(2):129-139.
34. Daugirdas JT, Blake P, Ing TS, Blagg C. Handbook of Dialysis. Fourth Edi. 2007.
35. Li H, Jiang Y, Lin C. Factors associated with self-management by people undergoing hemodialysis: A descriptive study. Int J Nurs Stud. 2014;51(2):208-216.
36. Bonner A, Havas K, Douglas C, Thepha T, Bennett P, Clark R. Self-management programs in stages 1-4 chronic kidney disease: A literature review. J Ren Care. 2014;40(3):194-204.