Original Article

doi:10.31674/mjn.2025.v17i02.022

MJN

Analysis of the Relationship between Social Support, Knowledge and Demographic Factors on Self-Acceptance of Haemodialysis Patients in Medan

Cholina Trisa Siregar[1*], Indah Septiani Pasaribu[2], Dudut Tanjung[1], Evi Karota Bukit[3]

[1]Department Medical-Surgical Nursing, Faculty of Nursing, Universitas Sumatera Utara, Medan 20155, Indonesia

[2]Department Medical-Surgical Nursing, Universitas Sumatera Utara Hospital, Medan 20155, Indonesia

[3]Department of Community Nursing, Faculty of Nursing, Universitas Sumatera Utara, Medan 20155, Indonesia

**Corresponding Author's Email: cholina@usu.ac.id*

ABSTRACT

Background: Haemodialysis patients require social support and self-acceptance, which influence both internal and external aspects affecting the patient. Positive self-acceptance enhances the quality of life for individuals undergoing treatment. **Methods:** The research employed a quantitative descriptive design with a cross-sectional method to investigate the interaction of social support, knowledge, and demographics on the self-acceptance of haemodialysis patients. The study sample comprised 106 patients who received haemodialysis at the hospital. The inclusion criteria consisted of weekly routine haemodialysis, individuals aged 17 to 80 years, and duration of haemodialysis treatment ranging from 1 to 5 years. The data collection employed the Unconditional Self-Acceptance Questionnaire (USAQ) Questionnaire, Multidimensional Scale of Perceived Social Support (MSPSS), and information on renal illness. Statistical software was utilized for data analysis to derive frequency distribution and conduct Chi-Square tests to evaluate the association between variables. **Results:** The findings indicated that self-acceptance was favourable at 61%, moderate social support at 57%, and a good knowledge level at 54%. Age significantly correlated with self-acceptance (*P*: 0.04), although social support, knowledge, gender, and employment level did not demonstrate any link with self-acceptance. **Conclusion:** Self-acceptance is affected by age, although social support, knowledge, gender and occupation do not significantly impact. Cultural influences and regional values contribute to patients' self-acceptance of health issues. Healthcare providers and nurses' professionals consider age-related characteristics and artistic dimensions to deliver tailored psychosocial support for haemodialysis patients. Nurses need to consider age factors and cultural values in providing psychosocial support to haemodialysis patients to improve self-acceptance and quality of life of patients.

Keywords: Self-Acceptance; Social Support; Knowledge Level; Haemodialysis

INTRODUCTION

The incidence of chronic kidney disease (CKD) is rising annually, currently estimated at 10% of the global population (World Health Organisation (WHO, 2023). The number of new patients undergoing haemodialysis (HD) in Indonesia rose by 4,218 in 2019, 4,854 in 2020, and 5,763 in 2022 (IRR, 2022). This illness necessitates collaboration to avert chronic kidney disease resulting from hypertension and diabetes while also fostering a healthy lifestyle within the community. The deterioration of physical function leads to alterations in the mental and emotional state of patients; thus, psychological factors, including self-acceptance of disease-related changes, must be prioritised by nurses, as they substantially influence the enhancement of the patient's quality of life (Xu & Liao, 2021).

Physical and psychological alterations influence the quality of life, lifestyle, and emotional stress; self-acceptance is a crucial element that aids patients in adapting to health condition changes (Shirazian *et al*., 2023). Psychosocial changes in kidney disease patients require disease management such as social support, increased

Received: January 3, 2025; Received in revised form: June 10, 2025; Accepted: June 30, 2025

coping mechanisms, trust in health workers and mental health. Chronic Kidney Disease (CKD) patients require a holistic approach in increasing self-acceptance and quality of life to reduce anxiety, sadness, and decreased self-esteem (Jiakponna *et al*., 2024).

Familial social support significantly influences the transformation of both physical and psychological disorders by fostering connection, security, and emotional stability. This assistance has demonstrated efficacy in reducing stress levels and enhancing psychological adaptability in patients (Liu *et al*., 2023). Patients must confront alterations in daily life, including lifestyle modifications, activity restrictions, and reliance on prolonged medical care. This disorder diminishes the patient's self-acceptance, adversely affecting the overall quality of life (Shirazian *et al*., 2023). Patients who enhance their self-acceptance recognise that experiencing the symptoms of the disease is not an issue to be confronted with rejection but rather a transformation that requires resolution and acceptance through the identification of optimal solutions (Siregar & Ramayani, 2019).

Illness-induced changes necessitate patient adaptation and demand social support and knowledge regarding their health state. Demographic variables, including age, gender, and occupation, contribute to patients' attainment of enhanced self-acceptance (Tao *et al.*, 2023). Health changes that occur in patients illustrate the importance of the role of nurses in helping patients adapt through social interventions, education and nursing approaches that take into account the patient's cultural values. The contribution of nurses is needed in dealing with patient problems because nurses are a key profession in improving self-acceptance and quality of life for haemodialysis patients. Understanding the psychosocial dimension is essential for formulating appropriate nursing strategies and interventions.

METHODOLOGY

Study Design

This study used a cross-sectional analytical design to analyse the relationship between social support, knowledge, and demographic factors on self-acceptance in haemodialysis patients in Medan. The cross-sectional approach allows researchers to collect data at one point in time, making it possible to examine the relationship between variables without manipulating the research environment.

Setting

This study was conducted at Prof. Dr. Chairuddin Panusunan Lubis Hospital, University of North Sumatra, and Dr. Pirngadi Medan Regional Hospital, both located in Medan, Indonesia. These hospitals were chosen because of their status as teaching hospitals that are actively involved in the education and development of health workers. Data collection was conducted from January 2024 to October 2024.

Study Participants

The study population was 210 patients who routinely underwent haemodialysis twice a week. The minimum sample size was calculated using the Slovin formula with a significance level of 5%, then the sample size was 106 and recruited using random sampling (WHO, 2001).

Selection

The sample was selected using purposive sampling with inclusion criteria being age 17-80 years, duration of haemodialysis (HD) 1 to 5 years, undergoing regular haemodialysis treatment and able to communicate effectively to answer the questionnaire given. Exclusion criteria for haemodialysis patients with malignancy, intoxication, and heart disease. Samples signed the consent form, for samples under 20 years of age accompanied by parents. The consent given was obtained prior to data collection. All respondents also signed a consent form before enrolling in this study. These respondents were informed about the purpose, benefits, data collection tools, and data collection process. They were assured of their right to refuse participation, and the researcher would maintain the confidentiality of the data and information provided.

Research Instrument

This study employed a Likert scale questionnaire, specifically a self-acceptance assessment utilising the Unconditional Self-Acceptance Questionnaire (USAQ), social support measured by the Multidimensional Perceived Social Support Scale (MSPSS), and knowledge evaluated through a questionnaire developed by the

researchers based on literature reviews. The USA Q questionnaire effectively assesses self-acceptance in adults. The evaluation of responses utilises a Likert scale ranging from 1 to 7, comprising 20 questions, with a minimum score of 20 and a maximum score of 140. The score computation results were classified according to the cut-off point: negative self-acceptance for scores below the average and positive self-acceptance for scores equal to or above the average. The validity test results, utilising the Pearson Product Moment Correlation, yielded a validity range of 0.388 to 0.718 for the USAQ Questionnaire, with a reliability coefficient of 0.766.

The MSPSS questionnaire evaluates social support for patients using a Likert scale of 1-4 and comprises 12 questions. The minimum score is 12, and the maximum is 48. The scoring results are categorised as follows: a score of 12-24 indicates weak social support, 25-36 signifies moderate social support, and a score of 37-48 reflects good social support. The validity test results, utilizing the Pearson Product Moment Correlation, yielded an MSPSS validity range of 0.672 to 0.834, with a reliability coefficient of 0.753.

The knowledge questionnaire delineates patients' understanding of chronic renal disease, and a comprehensive literature evaluation formulates it. The questionnaire comprises 24 questions with numerous true and false options. Correct responses are assigned a value of 1, while incorrect responses are assigned a value of 0. The score calculation results are categorised into two groups: low knowledge, with a score of less than 12, and high knowledge, with a score greater than 13. The content validity assessment indicates that the questionnaire possesses internal solid consistency and a reliability coefficient of 0.88.

Statical Analysis

This study analysed univariate and bivariate data using SPSS statistical software version 20. Univariate analysis describes the frequency distribution of demographic data, self-acceptance, social support, and knowledge, while bivariate analysis uses Chi-Square test to analyse the relationship between Knowledge Level, Age, Gender, Working, Social Support with Self-Acceptance of haemodialysis patients.

Ethical Consideration

The researchers obtained Ethical approval for this study from the Health Research Ethics Committee Board of the Universitas Sumatera Utara, Indonesia with the reference number 248/KEPK/USU/2024 on 14th March, 2024.

RESULTS

Table 1 indicates that the predominant demographic of haemodialysis patients consists of middle-aged adults (57 individuals, 54%), those with a bachelor's degree (52 individuals, 49%), females (57 individuals, 54%), and unemployed individuals (58 individuals, 55%).

Table 1: Distribution and Frequency of Respondents

Variable	n	%
Age		
Young Adults	13	12
Middle Adults	57	54
Old Adults and Elderly	36	34
Level of Education		
Primary	7	7
Junior High	2	2
High School	45	43
Bachelor	52	49
Gender		
Male	49	46
Female	57	54
Profession		
Not Working	41	39
Working	65	61
Self-acceptance		
Negative	58	55
Positive	48	45

Table 2 demonstrates that the predominant facet of self-acceptance among haemodialysis patients, about feedback and self-comparison, is represented by a moderate value of 78 individuals (73%). This suggests that most patients' self-comparison or get feedback throughout their self-acceptance process. The dimension of Conditional Self-acceptance is valued by 52 individuals (49%), suggesting that patients experience enhanced self-acceptance when specific conditions or support are fulfilled. The dimension of unconditional self-acceptance is represented by 50 individuals (47%), indicating patients who exhibit positive self-acceptance irrespective of their health status.

Table 2: Frequency Distribution of Self-acceptance

Variable	n	%
Unconditional Self-acceptance		
Low	10	10
Middle	50	47
High	46	43
Conditional Self-acceptance		
Low	7	7
Middle	47	44
High	52	49
Feedback and Self-Comparison		
Low	7	6
Middle	28	73
High	21	20

Table 3 indicated that most respondents exhibited positive self-acceptance, with 65 individuals (61%) suggesting that some respondents still require additional support in embracing their health status. In a moderate social support condition, 61 individuals (57%) indicated that most patients possessed enough social support. However, very few received ideal social support, which may impact their quality of life and self-acceptance.

Table 3: Frequency Distribution of Self-Acceptance, Social Support, and Knowledge Level of Haemodialysis Patients in 2024

Variable	n	%
Social Support		
Bad	41	39
Moderate	61	57
Inadequate	4	4
Knowledge Level		
Sufficient	57	54
Enough	49	46
Amount	**106**	**100**

Table 4 demonstrates that patients possessing adequate knowledge exhibit a self-acceptance rate of 65% and 57%. Furthermore, the association between knowledge and self-acceptance is negligible ($r = 0.08$) and lacks statistical significance (p-value = 0.41). Young individuals have a higher prevalence of negative self-acceptance at 62%, but older adults and the elderly demonstrate a greater prevalence of positive self-acceptance at 63% and 67%, respectively. Older age demographics generally exhibit higher levels of self-acceptance, indicating a statistically significant correlation between self-acceptance and age, albeit a modest association (p-value = 0.04, $r = 0.13$). The distribution of self-acceptance among male and female patients is roughly balanced, with 65% and 58% rates, respectively. The correlation between gender and self-acceptance is minimal ($r = 0.07$) and statistically insignificant (p-value = 0.43). Unemployed patients exhibit a self-acceptance rate of 62%. The link between employment status and self-acceptance is negligible ($r = 0.01$) and statistically insignificant (p-value = 0.86).

Table 4: Relationship between Self-Acceptance and Social Support, Level of Knowledge, Gender, Occupation and Age of Haemodialysis Patients in 2024

Variable	Self-Acceptance				*df*	Significance
	Negative		Positive			
	n	%	n	%		
Knowledge Level						
Adequate	20	35	37	65	2	*p*-value = 0.41
Sufficient	21	35	28	57		
Total	41	39	65	61		*r*=0.08
Age						
Young Adults(18-35age)	8	62	5	39	3	*p*-value = 0.04*
Middle Adults(36-55 age)	21	37	36	63		
Old Adults and Elderly (above 55 age)	12	33	24	67		*r*=0.13
Total	41	39	65	61		
Gender						
Male	17	35	32	65	1	*p*-value =0.43
Female	24	42	33	58		
Total	41	39	65	61		*r*=0.07
Working						
Not Working	22	38	36	62	1	*p*-value =0.86
Working	19	40	29	60		
Total	41	39	65	61		*r* =0.01
Social Support						
Inadequate	16	39	25	61	2	*p*-value =0.95
Moderate	25	39	40	62		
Adequate	41	39	65	61		*r*=0.00

(*)= p-value less than 0.05, suggesting a statistically significant correlation between self-acceptance and age;(r) = Effect size; df= degree of freedom

DISCUSSION

Decreased kidney function causes changes in health conditions and causes stress in patients, in addition, demographic factors also play an important role that can affect the psychological condition of patients with chronic kidney disease (Bello *et al*., 2022). Higher stress levels occur at a younger age, female gender, marital status and rapid disease progression. This condition can affect the quality of life, and a holistic approach is needed in carrying out care and self-acceptance with the condition of illness (Gerogianni *et al*., 2018). This study describes the relationship between self-acceptance of haemodialysis patients with demographic data, knowledge and social support of haemodialysis patients. The results of the correlation analysis obtained a relationship between self-acceptance and patient age (*p*-value: 0.04), while the results of the correlation analysis obtained no significant relationship between self-acceptance and level of knowledge (*p*-value: 0.41), gender (*p*-value: 0.43), occupation (*p*-value: 0.86) and social support (*p*-value: 0.95).

The results of the significant correlation analysis between self-acceptance and patient age are in line with Wijayanti's *et al*. (2022), who found that patients entering middle adulthood are faced with various problems of changes in physical and psychological health conditions, so they try to achieve success and solve existing problems. Involvement in solving problems can increase self-acceptance of their illness. Huda *et al*., 2023 said that older adults experience a decline in quality of life due to a decline in their physical condition, so they need the ability to solve their health problems. The results of this study obtained data on the highest age of respondents, namely middle adulthood and the last education was a bachelor's degree. This illustrates the condition of patients who are still strong in managing their lives, health and learning the care needed to minimise the effects of their illness. Age is an important factor that influences patients' self-acceptance of their illness, where older age shows a better level of emotional maturity and life experience (Flecha, 2019). Older patients have higher self-acceptance than younger patients, because they have experience managing the changes that occur and life challenges. Self-acceptance formed from the mechanism of meaning of life and life goals can improve coping mechanisms (Lee *et al.*, 2022). The age of the largest respondents was middle adulthood 54%, where middle

adulthood is the age when someone has a family and great responsibility for their family and themselves. Older adults have higher hopes for the future, opportunities to achieve success, understand themselves well and religious values (Seery & Buchanan, 2022).

Self-acceptance of haemodialysis patients is shaped by internal and external factors. These factors include family support, social support, support from health workers, access to information and education, economic stability and technological innovation in patient care, facilities, socio-demographics, level of knowledge, social support, psychological self-esteem, stress level, emotional intelligence, emotional beliefs, spiritual beliefs, resilience, self-control (Kim & Cho, 2021). This is contrary to the results of the correlation analysis study, namely that there was no significant relationship between self-acceptance and level of knowledge, gender, occupation and social support. Yasin's *et al*., 2024 found that self-acceptance of haemodialysis patients increased due to socio-demographic factors and social support provided to patients. Social support, especially obtained from the family, plays an important role in increasing patient self-acceptance, social support provided by partners, family, friends and the community can help patients deal with conditions of declining health and psychological vulnerability (Kholifah *et al*., 2022). Social support from family and the surrounding environment can help patients feel more accepted and able to deal with their health conditions better. Social support is considered an important factor in psychological well-being and can indirectly influence patient self-acceptance such as compliance with treatment (Ma *et al*., 2022).

Declining health conditions and differences in coping mechanisms that each individual has can affect the patient's ability to increase self-acceptance of the disease they are suffering from (Ma *et al*., 2022). Psychological conditions such as depression have a greater influence on self-acceptance than social support, this is influenced by the patient's inability to manage emotions that occur due to their health condition (Kim & Cho, 2021). Depression is the strongest factor that affects patients' self-acceptance of their illness, resulting in the inability of haemodialysis patients to carry out self-management (Ma *et al.*, 2022). Reduced self-management results in patients requiring haemodialysis sessions every week increasing to 3-4 times. This can cause patients to experience fatigue, insomnia, poor appetite and other physical symptoms (Natashia *et al*., 2019).

The results of the study describe the important role of nurses in providing psychosocial support for haemodialysis patients that is appropriate to the patient's age. Nurses comprehensively conduct assessments that include the emotional, cognitive, and social dimensions of the patient to improve self-acceptance. Age is a factor related to patient care, so nursing interventions must be adjusted to the patient's developmental stage and psychological readiness. Nursing care provided will be better if nurses work together with families and communities to strengthen support networks and provide health education that encourages adaptive coping strategies. Nursing professionals are encouraged to integrate culturally appropriate care and psychoeducation to address emotional challenges and improve quality of life. Nurses' ability development programs in supporting mental health and communication skills are a priority, so that the achievement of successful patient care results in good results. .

Limitation

This study still has several limitations; a great limitation is the cross-sectional research design where we could only measure the and this study has a limitation of the number of research samples and should be conducted in all hospitals not only in government hospitals. It is better if the sample of this study is not limited to the length of haemodialysis. Data collection was carried out at the end of the haemodialysis (HD) session when patients were willing to go home due to tired from undergoing the treatment. Therefore, data collection should be carried out by home visits or before HD takes place.

CONCLUSION

This study assessed the relationship between self-acceptance of haemodialysis patients with demographic data, knowledge and social support. The results of this study found that self-acceptance of haemodialysis patients in Medan was significantly influenced by age. Older patients tended to have higher levels of self-acceptance than younger patients. Other factors such as gender, employment status, level of knowledge, and social support did not show a significant relationship with patient self-acceptance, in addition, the values built, and beliefs held by patients play a role in shaping patient attitudes towards their health conditions. Low self-

acceptance in haemodialysis patients can cause different negative impacts depending on their age. Therefore, specific and age-based nursing intervention are needed so that patients can adapt more easily to their conditions. Increasing self-acceptance will help patients undergo therapy more positively, improve quality of life, and reduce stress and anxiety that can worsen their health conditions. Future studies are encouraged to explore the influence of psychological variables such as depression, coping mechanisms, and spiritual beliefs in shaping self-acceptance, using longitudinal or mixed methods approaches to gain deeper insights.

Recommendation

The study findings recommend that nursing professionals develop age-appropriate psychosocial interventions to enhance self-acceptance in haemodialysis patients, especially those in middle adulthood. Age significantly influences self-acceptance, daily care and emotional appraisal. Nursing institutions can provide ongoing training for nurses on culturally sensitive communication and psychosocial support strategies. Although social support and knowledge were not significantly associated in this study, both remain important components of holistic care. Ongoing education and family involvement should continue to be implemented.

Conflict of Interest

The authors declare that they have no competing interests.

ACKNOWLEDGEMENT

The author gratefully acknowledges the haemodialysis patients, the dedicated haemodialysis nurses, and the hospital for their valuable support and cooperation in facilitating the completion of this research.

REFERENCES

Bello, A. K., Okpechi, I. G., Osman, M. A., Cho, Y., Htay, H., Jha, V., ... & Johnson D.W. (2022). Epidemiology of haemodialysis outcomes. *Nature Reviews Nephrology, 18*(6), 378–395. https://doi.org/10.1038/s41581-022-00542-7

Flecha, G.A.C. (2019). Self-acceptance and meaning/purpose in life between senior citizens residing in nursing homes. *Pedagogía social: Revista Interuniversitaria, 33*,137-148. https://doi.org/10.7179/PSRI_2019.33.10

Gerogianni, G., Lianos, E., Kouzoupis, A., Polikandrioti, M. & Grapsa, E. (2018). The role of sociodemographic factors in depression and anxiety of patients on haemodialysis: an observational cross-sectional study. *International Urology and Nephrology, 50*, 143-154. https://doi.org/10.1007/s11255-017-1738-0

Huda, A., Said, F. M., Kanathasan, J. S. & Hasibuan, S. H. (2023). Evaluation of the use of intradialytic exercise and cognitive behavior therapy for improving patients' quality of life undergoing haeodialysis: a systematic review. *The Malaysian Journal of Nursing (MJN), 14*(4),163-171. https://doi.org/10.31674/mjn.2023.v14i04.017

Indonesian Renal Registry. (2022). *Indonesian Renal Registry (IRR)*. Indonesian Renal Registry. https://www.indonesianr enalregistry.org/

Jiakponna, E.C., Agbomola, J.O., Ipede, O., Karakitie, L., Ogunsina, A.J., Adebayo, K.T., & Tinuoye, M.O. (2024). Psychosocial factors in chronic disease management: Implications for health psychology. *International Journal of Science and Research Archive, 12(*02), 117-128. https://doi.org/10.30574/ijsra.2024.12.2.1219

Kim, H., & Cho, M. K. (2021). Factors influencing self-care behavior and treatment adherence in haeodialysis patients. *International Journal of Environmental Research and Public Health. 18*(24), 1-13. https://doi.org/10.3390/ijerph182412934

Kholifah, S. N., Wibrata, D. A., Minarti, M., Suprajitno, S., & Ankhofiya, D. (2022). Increased Self-Acceptance of Chronic Kidney Failure Clients through Family Support. *Health Notions. 6*(01), 13-17. http://dx.doi.org/10.33846/hn60102

Liu, Q., Zhang, L., Xiang, X., Mao, X., Lin, Y., Li, J. & Cui, W. (2023). The influence of social alienation on

maintenance haemodialysis patients' coping styles: chain mediating effects of family resilience and caregiver burden. *Frontiers in Psychiatry,14*, 1-8. https://doi.org/10.3389/fpsyt.2023.1105334 .

Lee, J. E., Kahana, E., Kahana, B. & Zarit, S. (2022). The role of goal and meaning in life for older adults facing interpersonal stress. *Aging & Mental Health, 26*(1),149-158 https://doi.org/10.1080/13607863.2020.1849020.

Ma, L. C., Liu, Y. M., Lin, Y. C., Liao, C. T., Hung, K. C., Chen, R., ... & Zheng, C. M. (2022). Factors influencing Self-management behaviors among haemodialysis patients. *Journal of Personalized Medicine, 12*(11), 1-9. https://doi.org/10.3390/jpm12111816

Natashia, D., Yen, M., Chen, H.M., Fetzer, S.J. (2019). Self-management behaviors in relation to psychological factors and interdialytic weight gain among patients undergoing haeodialysis in Indonesia. *Journal of Nursing Scholarship, 51*(4), 417–426. https://doi.org/10.1111/jnu.12464 .

Shirazian, S., Smaldone, A. M., Jacobson, A. M., Fazzari, M. J. & Weinger, K. (2023) Improving quality of life and self-care for patients on haemodialysis using cognitive behavioral strategies: A randomized controlled pilot trial. *PLoS OnE. 18*(5),1-14. https://doi.org/10.1371/journal.pone.0285156

Siregar, C. & Ramayani, M. (2019). Self-Acceptance of Chronic Caused Failure Patients That Have a Haeodialysis in Medan. *Caring: Indonesian Journal of Nursing Science (IJNS), 1*(1),18 – 24. https://doi.org/10.32734/ijns.v1i1.1169

Seery, C. & Buchanan, S. (2022). The psychosocial needs of patients who have chronic kidney disease without kidney replacement therapy: a thematic synthesis of seven qualitative studies. *Journal of Nephrology, 35*(9), 2251-2267. https://doi.org/10.1007/s40620-022-01437-3

Tao, Y., Liu, T., Zhuang, K., Fan, L., Hua, Y. & Ni, C. (2023). Perceived stress, social support, and insomnia in haemodialysis patients and their family caregivers: an actor-partner interdependence mediation model analysis. *Frontiers in Psychology, 14*, 1-9 https://doi.org/10.3389/fpsyg.2023.1172350 .

World Health Organization (WHO). (2001). Health research methodology: A guide for training in research methods. (2nd ed.). World Health Organization, Manila. Retrieved from: https://iris.who.int/bitstream/handle/10665/206929/929061157X_eng.pdf?sequence=1. Accessed on 20th September 2024.

World Health Organization (WHO). (2023). Chronic kidney disease. Retrieved from: https://apps.who.int/gb/ebwha/pdf_files/EB156/B156_CONF6-en.pdf. Accessed on 20th September 2024.

Wijayanti, L., Wardani, E. M., Bistara, D. N., Hasina, S. N., & Noventi, I. (2022). Self-acceptance of patients that received haemodialysis. *Bali Medical Journal, 11*(1), 283-287. https://doi.org/10.15562/bmj.v11i1.3106

Xu, X. & Liao, X. (2021). Effect of mindfulness cognitive behavior intervention on self-efficacy, self-management ability and self-perceived burden in elderly patients with hip fracture fixation. *International Journal of Clinical and Experimental Medicine, 14*(2), 940-946. https://e-century.us/files/ijcem/14/2/ijcem0122330.pdf

Yyasin, F., Khraim, F., Santos, M., Forgrave, D., & Hamad, A. (2024). Factors influencing self-care management in adult haemodialysis patients: An integrative review. *Qatar Medical Journal, 2024*(1), 1-17. https://doi.org/10.5339/qmj.2024.12