

Arief Yanto

Similarity Correlation of the Caring Behaviour of Nurses With the Motivation of Patients Undergoing Haemodialysis

 ARIEF YANTO

 Dosen D3 Keperawatan

 Universitas Muhammadiyah Semarang

Document Details

Submission ID

trn:oid::1:3353277076

Submission Date

Sep 27, 2025, 7:11 PM GMT+7

Download Date

Sep 27, 2025, 7:42 PM GMT+7

File Name

48753-Article_text-315889-1-10-20240425.pdf

File Size

216.9 KB

8 Pages

5,420 Words

29,833 Characters

18% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text
- Submitted works
- Internet sources

Exclusions

- 1 Excluded Sources

Match Groups

-  **38 Not Cited or Quoted** 13%
Matches with neither in-text citation nor quotation marks
-  **15 Missing Quotations** 5%
Matches that are still very similar to source material
-  **0 Missing Citation** 0%
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted** 0%
Matches with in-text citation present, but no quotation marks

Top Sources

- 0%  Internet sources
- 18%  Publications
- 0%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Match Groups

- 38 Not Cited or Quoted** 13%
Matches with neither in-text citation nor quotation marks
- 15 Missing Quotations** 5%
Matches that are still very similar to source material
- 0 Missing Citation** 0%
Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted** 0%
Matches with in-text citation present, but no quotation marks

Top Sources

- 0% Internet sources
- 18% Publications
- 0% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Publication	Yanuarita Tursinawati, Ali Rosidi, Nabil Hajar, Devita Diatri et al. "Effect of differe...	2%
2	Publication	Riham Raafat Mahdy, Rahma Soliman Bahgat, Amal Gharib Sabaq, Rawia Abd El-G...	1%
3	Publication	Abbas Saroukhani, Soheil Omid. "The comparison of streptokinase, an old agent, ...	1%
4	Publication	Ardashir Afrasiabifar, Asadolah Mosavi, Abolfazl Dehbanizadeh, Sahar Khaki. "Nu...	1%
5	Publication	Ahmad S. Musa, David J. Pevalin, Murad A. A. Al Khalaileh. "Spiritual Well-Being, D...	1%
6	Publication	Azzahra Vanda S, Deandra Arthamevia B, Nesya Rahma W, Fadia Nur Maya et al. "...	1%
7	Publication	Muthmainah, Hanik Badriyah Hidayati, Budi Yanti. "Improving Health for Better F...	1%
8	Publication	Intan Rizkianti, Ani Haryani. "The Relationship Between Workload and Work Stres...	1%
9	Publication	Elwaleed Idris Sagiron, Ahmed Abdalla Jarelnape. "Knowledge and Practice Regar...	<1%
10	Publication	Fitriani Damayanti, Zulvi Wiyanti, Satria Pranata, Ariyani Lutfitasari. "Labour pain...	<1%

11	Publication	Adamasco Cupisti, Valerio Ferretti, Claudia D'Alessandro, Isabella Petrone et al. "...	<1%
12	Publication	Hamid Sharif-Nia, João Marôco, Erika Sivarajan Froelicher, Saeed Barzegari, Niloo...	<1%
13	Publication	Nursalam Nursalam, Mira Triharini, Awatiful Azza, Chanif Chanif et al. "The relati...	<1%
14	Publication	Ma. Almira Pliego Nebres, Clarence Bien Ladion Nebres, Bienvisa Ladion Nebres. ...	<1%
15	Publication	Satriya Pranata, Shu-Fang Vivienne Wu, Hendri Purwadi, Dewa Gede Sanjaya Putr...	<1%
16	Publication	Fatma Refaat Ahmed, Fionna Timmins, Jacqueline Maria Dias, Nabeel Al-Yateem e...	<1%
17	Publication	Simin Alasvand, Mehrnaz Ahmadi, Hamid Sharif-Nia, Marziyeh Asadizaker. "Psych...	<1%
18	Publication	Kimberly Smith, Melinda Coston, Kimberly Glock, Tom A. Elasy, Kenneth A. Wallst...	<1%
19	Publication	Monir Nobahar, Raheb Ghorbani, Zeinab Alipour, Elahe Jahan. "Relationship Betw...	<1%
20	Publication	Suchitra Pal, Santhna Letchmi Panduragan, Faridah Mohd Said, Sandeep Poddar. ...	<1%
21	Publication	Asra ., Arif Susila, Dadang Rochman, Trio Gustin Rahayu, Mira Lestari. "Adherence...	<1%
22	Publication	Dwi Mulianda, Chandra Ropyanto. "Effect of spiritual emotional freedom techniq...	<1%
23	Publication	Hermine Danielle Epse Ebana Menye Fouda, Franck Niverd Mefeya Mouaffo, Victo...	<1%
24	Publication	Yon Hee Seo, Hye-Young Jang, Jung-Won Ahn. "Validation of the Korean Version o...	<1%

25

Publication

Ani Haryani, Lukmanulhakim .. "Predictors of Nurse's Caring Behavior towards Pa...

<1%



ORIGINAL ARTICLE

Correlation of the Caring Behaviour of Nurses With the Motivation of Patients Undergoing Haemodialysis

Vivi Yosafianti Pohan,¹ Arief Yanto,¹ Satriya Pranata¹

Abstract

Background/Aim: There is a need to establish a satisfactory level of performance for nurses working in haemodialysis units, which will provide qualified competent nurses who will take care of patients. Thus, the purpose of this study was to analyse the caring behaviour of haemodialysis nurses with the motivation of patients undergoing haemodialysis.

Methods: The research design was a descriptive correlation approach. The subjects of this study were patients who were undergoing therapy in the haemodialysis room. Researchers collected data for 1 month in September 2023. The relationship between nurses' caring behaviour and haemodialysis patient motivation was determined by conducting a Spearman rank correlation analysis.

Results: Out of 118 patients, 48.7 % of patients thought nurses had poor caring behaviour. The research results also showed that patient motivation in undergoing haemodialysis was in the low motivation category (47.8 %). There was a significant relationship between nurses' caring behaviour and patient motivation in undergoing haemodialysis therapy ($p = 0.0001$). Based on the correlation coefficient value ($r = 0.632$), the two variables had a strong relationship.

Conclusion: Nurses' caring behaviour can increase patient motivation in undergoing haemodialysis therapy. Nurses' caring behaviour still needs to be optimised because the interaction between nurses and patients in the treatment process provides support to patients.

Key words: Motivation; Haemodialysis; Caring; Behaviour.

1. Department of Nursing, Faculty of Nursing and Health Sciences, Universitas Muhammadiyah Semarang, Semarang, Central Java, Indonesia.

Citation:

Pohan VY, Yanto A, Pranata S. Correlation of the caring behaviour of nurses with the motivation of patients undergoing haemodialysis. Scr Med. 2024 Mar-Apr;55(2):149-56.

Corresponding author:

VIVI YOSAFIANTI POHAN
E: vvp@unimus.ac.id

Received: 16 January 2024
Revision received: 23 February 2024
Accepted: 24 February 2024

Introduction

The motivation of patients undergoing haemodialysis is essential to consider various factors that influence their experiences and outcomes. Studies have shown that patients undergoing haemodialysis face numerous challenges, including physical, psychological and socio-economic issues.^{1, 2} These challenges can impact their quality of life and overall well-being.^{3, 4} Furthermore, the process of transitioning to haemodialysis presents a significant challenge for patients, as it involves accepting and adapting

to the treatment.⁵ This highlights the importance of understanding the factors that influence patients' responses to haemodialysis, including their demographic and medical characteristics.⁶⁻⁸

In addition to the challenges associated with haemodialysis, patients may experience stress and fatigue, which can significantly impact their psychosocial adaptation and quality of life.^{9, 10} Addressing stress responses and providing interventions to reduce stress can be crucial

in improving patients' psychosocial adaptation and overall well-being.⁵ Moreover, the impact of nurse-led nonpharmacological multidisciplinary holistic nursing care on fatigue in haemodialysis patients underscores the significance of comprehensive care in addressing patients' physical and mental health.^{11, 12}

Furthermore, the influence of social support in patients undergoing maintenance haemodialysis has been highlighted, with studies showing that social support, coping style, marital status and family income significantly influence patients' post-traumatic growth levels.^{9, 13} This emphasises the need for holistic support systems to address the multifaceted challenges faced by haemodialysis patients.

Moreover, the role of motivation in fluid management among chronic haemodialysis patients has been recognised, with interventions targeting motivational issues, patient knowledge, social support and accurate self-assessment of fluid status being crucial in improving fluid restriction adherence.¹⁴⁻¹⁶ Additionally, the effects of motivational interviewing on the health status of haemodialysis patients have been explored, indicating that motivational interviewing can lead to changes in attitudes, beliefs and behaviours, ultimately improving patients' adherence to treatment regimens and health status.^{6, 17}

Nurses play a significant role in providing holistic care to haemodialysis patients, addressing not only their physical needs but also their emotional and spiritual well-being.^{7, 18} Addressing haemodialysis patients' spirituality in nursing care is an essential component of high-quality care and these patients wanted nephrology nurses to incorporate spirituality into their care by such means as supporting and maintaining their religious and spiritual resources and connections.¹⁹

Studies have shown that nurses are essential in providing support, maintaining religious and spiritual resources and establishing connections with patients, which can positively impact the patients' motivation to continue their treatment.^{20, 21} Among haemodialysis professionals, nurses play an important role because they are near the patients, are more receptive to patients' concerns and can provide appropriate suggestions, advice or recommendations.^{22, 23}

The intimate relationship between nurses and patients has been identified as a facilitator for the delivery of haemodialysis care, indicating that the caring behaviours of nurses can significantly influence patient motivation.^{3, 24} Nursing presence is portrayed as "a caring behaviour of the nurse to be present with the patient in a clinical setting" to focus on the patient through attentiveness to the patient's needs and provide healing during haemodialysis treatment. Nurses play a major role in haemodialysis procedures because most of the complications facing patients during dialysis as hypotension, cramped muscles and weak pulse, need nurses with knowledge and practical experience.

Moreover, the provision of refined nursing intervention through caring behaviour has been shown to improve patient compliance, regulate negative emotions and enhance the nurse-patient relationship, all of which can contribute to patient motivation.²⁵ Therefore, there is a need to establish a satisfactory level of performance for nurses working in haemodialysis units which helps in providing qualified competent nurses who provide care for patients.

The purpose of this study was to analyse the caring behaviour of haemodialysis nurses with the motivation of clients undergoing haemodialysis.

Methods

The research design was a descriptive correlation approach. This study was completed in stages using descriptive methods with exploratory studies to obtain initial data which became a preliminary study.

Sample

This research was carried out in the haemodialysis room at Roemani Hospital, Semarang, Central Java, Indonesia. The research was conducted according to plan with research subjects of patients who were undergoing haemodialysis therapy, a total of 115 patients. The research subject criteria applied were patients who underwent haemodialysis more than once, could read and write and did not experience emergencies. The number of research subjects was calculated using the G-power program with an expected power of 95 % and a basic correlation

Pohan et al. Scr Med. 2024 Mar-Apr;55(2):149-56.

from previous research of 0.3. The sampling technique used was purposive sampling. This research was carried out in the haemodialysis treatment room at Roemani Hospital, Semarang, Indonesia.

Data collection

Researchers collected data for 1 month in September 2023. Data collection was carried out by giving questionnaires to research subjects while undergoing the haemodialysis process. Questionnaires that have been filled out by research subjects are checked for completeness by the researcher before the data entry.

Instruments

Caring for nurses was measured using a caring behaviour questionnaire adopted from a previous study.²⁶ The caring behaviour instrument consisted of 28 statement items which included: 10 creative elements of caring. This instrument has been declared valid from the results of the validity test with a value of $r = 0.464-0.763$ and declared reliable with a Cronbach's $\alpha = 0.944$. Meanwhile, motivation variables were measured using questionnaires from other research. The questionnaire has been declared valid with a value of $r = 0.468-0.662$ and reliable with a Cronbach's $\alpha = 0.888$.

Data analysis

The relationship between nurses' caring behaviour and haemodialysis patient motivation was determined by conducting a Spearman rank correlation analysis. This analysis was carried out due to a non-normal distribution of data. The research results were presented in the form of tables and graphic images to determine the direction of the relationship between the two variables. The data was analysed using the IBM SPSS Statistics version 26 programme.

Ethical considerations

Researchers explained prospective research subjects (patients) the aims and benefits of research. Patients who were willing to become research subjects were asked to sign the informed consent form that has been provided. Researchers did not include the identity of research subjects in reports or publication manuscripts to maintain subject confidentiality.

Results

The research results showed that the average age of the research subjects was 46.60 ± 7.35 years with the youngest being 30 years and the oldest being 62 years. The research subjects were dominated by male patients (77.4 %). Based on the research results (Table 1), it can be seen that nurses' caring behaviour still needed to be optimised. This is demonstrated by the results of patient assessments regarding nurses' caring behaviour which showed that 48.7 % of patients thought nurses had poor caring behaviour. Nurses' caring behaviour had an average score of 121.69 ± 14.61 , with the lowest score being 84 and the highest score being 140.

The research results also showed that patient motivation in undergoing treatment, or the haemodialysis therapy process was in the low motivation category (47.8 %). Patient motivation in undergoing haemodialysis therapy had an average score of 69.80 ± 9.90 , with the lowest score being 40 and the highest score being 80.

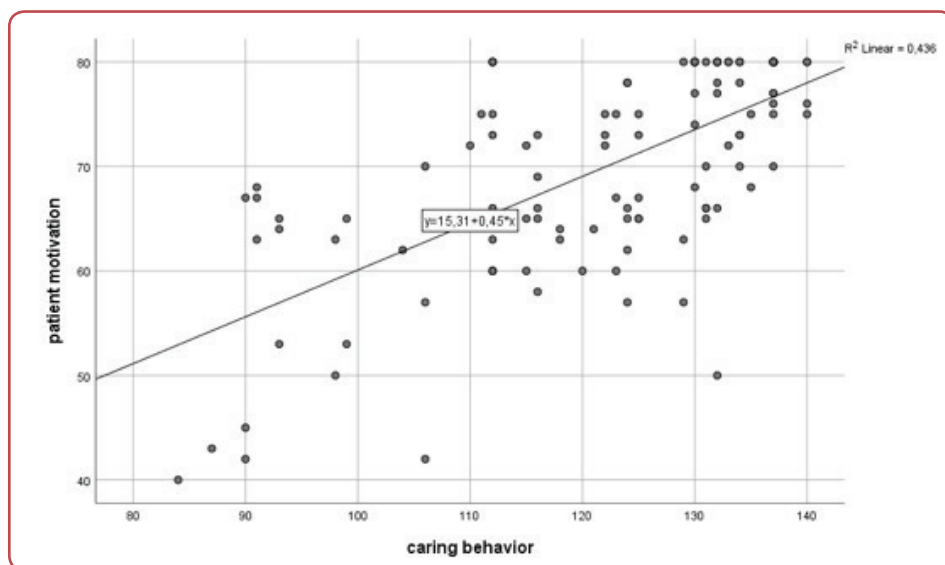
Table 1: Haemodialysis therapy patients gender, their motivation and perception of caring behaviour of nurses ($n = 115$)

Parameter	N	%
Gender of patients		
Man	89	77.4
Woman	26	22.6
Caring behaviour of nurses		
Good	59	51.3
Bad	56	48.7
Motivation of haemodialysis therapy in patients		
High	60	52.2
Low	55	47.8
Total	115	100.0

The relationship between nurses' caring behaviour and patient motivation in undergoing haemodialysis therapy was determined by conducting a correlation analysis between these two variables. Spearman correlation analysis (Table 2) showed that there was a significant relationship between nurses' caring behaviour and patient motivation in undergoing haemodialysis therapy ($p = 0.0001$). Based on the correlation coefficient value $r = 0.632$, it can be seen that the two variables had a strong relationship. The two variables studied had a unidirectional relationship, so it can be concluded

3

152



4

Figure 1: Relationship between nurses' caring behaviour and patient motivation in undergoing haemodialysis therapy

Table 2: Relationship between nurses' caring behaviour and motivation of haemodialysis therapy patients (n = 115)

Indicator	Motivation		r	p
	High	Low		
Nurses' caring behaviour				
	Good 44 (74.6 %)	15 (25.4 %)	0.632	0.0001 ^a
	Bad 16 (28.6 %)	40 (71.4 %)		

^a: Spearman Rank test; r: correlation coefficient, p: p-value, significant if < 0.05;

17

17

that the better the nurse's caring behaviour, the better the patient's motivation to undergo haemodialysis therapy in the hospital.

24

4

The research results (Figure 1) showed that the relationship between nurses' caring behaviour and patient motivation in undergoing haemodialysis therapy had a positive linear pattern. The results of the analysis showed that nurses' caring behaviour was able to increase patient motivation in undergoing haemodialysis therapy by 43.6 % and 56.4 % was influenced by other variables outside the research.

8

Discussion

23

The research results showed that the average age of patients undergoing haemodialysis therapy was 46.6 years. Another study also found the same thing the average age of haemodialysis patients was 46.85 years. However, another study reported that the cumulative incidence of death in home haemodialysis patients was 19.2 %,

indicating that haemodialysis patients may also include older individuals.² Therefore, the average age of patients undergoing haemodialysis can range from the mid-40s to older ages, reflecting the diverse demographic characteristics of this patient population.⁹

Patients undergoing haemodialysis therapy are dominated by chronic kidney disease (CKD) sufferers. There are several factors thought to contribute to the high prevalence of CKD in individuals in their 40s. Risk factors such as diabetes mellitus, hyperuricaemia and obesity have been identified as significant contributors to the development of CKD.^{2, 27, 28} Additionally, the presence of comorbidities such as diabetes mellitus and hypertension, which are common in middle-aged individuals, may increase the risk of CKD.²⁹ Additionally, a correlation between hypertension and the occurrence of CKD has been highlighted, indicating that individuals with hypertension, which often develops in middle age, may have a higher risk of developing CKD.^{30, 31} Additionally, the potential impact of nutritional intake on CKD has been suggested, with lower haemoglobin levels identified as a potential factor contributing to fatigue in CKD patients. It is important to note that the prevalence of CKD in individuals in their 40s may also be influenced by lifestyle factors such as obesity and trauma, which may contribute to the development of conditions such as osteoarthritis and potentially impact kidney health.^{32, 33} Additionally, the presence of other chronic conditions such as Graves' disease in younger individuals may

also contribute to the overall burden of kidney disease in this age group.³⁰ In summary, the high prevalence of CKD in individuals in their 40s may be due to a combination of risk factors such as diabetes mellitus, hyperuricaemia and obesity, as well as the presence of comorbidities such as hypertension and lifestyle factors such as obesity and trauma. These factors collectively contribute to the increased susceptibility of individuals in their 40s to developing CKD.^{30,34}

The research results showed that nurses' caring behaviour still needs to be optimised. This result is the same as other research which explains that nurses' caring behaviour is still low. This low caring behaviour of nurses can be influenced by several factors, both internal and external.³⁵ The low level of caring behaviour in nurses can be influenced by various factors. Research has shown that nurses' caring behaviour may be influenced by burnout, which can result from the emotional demands of providing care.³⁶ Additionally, the critical care environment and handling of patients with life-threatening conditions can impact nurses' caring behaviour. Factors such as nursing supervision, spirituality, caring efficacy and emotional intelligence were found to be significantly associated with nurses' caring behaviour in critical care settings. Burnout has also been identified as a factor that may influence empathy and, consequently, caring behaviour among nurses. Furthermore, the influence of the work environment, demographic factors and nurse-patient interpersonal relationships on caring behaviour has been highlighted in various studies.³⁷⁻³⁹ Additionally, the presence of guilt and secondary traumatic stress has been associated with compassion fatigue among nurses, which may impact their caring behaviour.³⁷ The level of empathy, fatigue and impact of the COVID-19 pandemic were also found to influence nurses' caring behaviour. In addition, the quality of the nurse-patient relationship, empathy and the demands of the nursing profession have been identified as factors that can influence nurses' caring behaviour. The low level of caring behaviour among nurses may be influenced by interplaying factors such as work fatigue, work environment, nurse-patient relationship, empathy and the emotional demands of the nursing profession.^{37,40}

The research results also showed that patient motivation in undergoing treatment or the haemodialysis therapy process is still not optimal. The low motivation of haemodialysis patients

has been linked to various factors identified in research. The need for prolonged haemodialysis treatment, associated complications and patient compliance requirements have been highlighted as factors influencing patient motivation.^{41, 42} In addition, the relationship between employment status and fatigue in haemodialysis patients has been established, with a significant relationship between unemployment and the occurrence of fatigue. In addition, the prevalence of high levels of fatigue in haemodialysis patients has been reported, indicating the impact of fatigue on patient motivation. Physical complaints commonly expressed by haemodialysis patients, such as fatigue, intolerance to cold weather, pruritus, weakness in the lower extremities and difficulty sleeping, are also known to contribute to low motivation. Additionally, the impact of lack of physical activity on the high mortality rate in end-stage renal disease (ESRD) patients undergoing haemodialysis has been highlighted, indicating the potential influence of physical activity on patient motivation.^{31, 43} The routine activity of haemodialysis as a renal replacement therapy for CKD patients has also been emphasised, highlighting the long-term and repetitive nature of the treatment, which can influence patient motivation. Additionally, the fear of haemodialysis among patients with low levels of education has been identified as a barrier to treatment adherence and motivation.⁴⁴ The low motivation of haemodialysis patients is associated with factors such as the need for prolonged treatment, employment status, fatigue, physical complaints, lack of physical activity, the routine nature of the treatment and fear of haemodialysis, all of which can have a significant impact on patients motivation.^{43, 45}

The results of the study showed that there was a significant relationship between nurses' caring behaviour and patient motivation in undergoing haemodialysis therapy. The caring behaviour of nurses has a significant influence on the motivation of haemodialysis patients. Research has shown that nurses' caring behaviour, particularly expressive and relational behaviour was positively correlated with patient satisfaction.^{12, 46} However, there may be a mismatch between patient and caregiver perceptions of caring, highlighting the importance of aligning these perceptions to improve patient motivation. In the context of haemodialysis, nurses' perceptions of the practice environment and patients' perceptions of nurses'

3

154

16

10

20

3

4

1

10

caring behaviour are closely related to patient satisfaction with nursing services. In addition, nursing interventions that identify and control haemodialysis patients' level of uncertainty can significantly improve patients' self-care coping and compliance.⁴⁷ The presence of nurses, which is defined as the caring behaviour of nurses present with patients in the clinical environment, plays an important role in focusing attention on patient needs and providing healing during haemodialysis treatment.¹² Additionally, nurses can contribute to effective fluid balance control, reduced costs and improved quality of care for haemodialysis patients through their nutritional knowledge.

Nurses play a key role in encouraging the development of self-care behaviour among haemodialysis patients by providing the necessary knowledge and skills.²³ The relationship between nurses and patients can facilitate the provision of haemodialysis services, emphasising the importance of intimate relationships between nurses and patients in increasing patient motivation.^{25, 48} Additionally, nurses' experiences in implementing caring attitudes and behaviours in daily clinical practice have been observed to increase self-esteem, sense of personal accomplishment and job satisfaction.⁴⁶ It is also important for nurses to provide regular follow-ups and instructions to haemodialysis patients regarding self-care behaviours. The caring behaviour of nurses is closely related to patient motivation in the context of haemodialysis.⁴⁹

Limitation of this study was that it was limited to only one City in Indonesia. It would be better if the study was conducted in many cities to achieve generalisation.

Conclusion

Nurses' caring behaviour can increase patient motivation in undergoing haemodialysis therapy. The interaction between nurses and patients in the treatment process can provide support to patients to face the therapy they are undergoing. Nurses are expected to always maintain quality in providing services to patients, especially to patients who are undergoing haemodialysis therapy in hospitals.

Pohan et al. *Scr Med.* 2024 Mar-Apr;55(2):149-56.

Ethics

The study was approved by the Health Research Ethics Committee of the Faculty of Nursing and Health Sciences, decision No 220/KEPK/VIII/2023, dated 28 August 2023.

Acknowledgement

The authors would like to thank Universitas Muhammadiyah Semarang for funding support.

Conflicts of interest

The authors declare that there is no conflict of interest.

Funding

This study was financially supported by the Universitas Muhammadiyah Semarang.

Data access

The data that support the findings of this study are available from the corresponding author upon reasonable individual request.

Author ORCID numbers

Vivi Yosafianti Pohan (VYP):
0000-0003-1974-6059
Arief Yanto (AY):
0000-0002-9033-9547
Satriya Pranata (SP):
0000-0002-2026-8931

Author contributions

Conceptualisation: VYP
Methodology: VYP

Validation: VYP
Formal analysis: VYP
Investigation: VYP
Resources: AY, SP
Data curation: AY, SP
Writing - original draft: VYP
Writing - review and editing: AY, SP
Visualisation: AY, SP
Supervision: VYP
Project administration: AY, SP
Funding acquisition: VYP

References

- Sousa CN, Teles P, Sousa R, Cabrita F, Ribeiro OMPL, Delgado E, et al. Hemodialysis vascular access coordinator: Three-level model for access management. *Semin Dial.* 2024 Mar-Apr;37(2):85-90. doi: 10.1111/sdi.13153.
- Wu HHL, Dhaygude AP, Mitra S, Tennankore KK. Home dialysis in older adults: challenges and solutions. *Clin Kidney J.* 2022;16(3):422-31. doi:10.1093/ckj/sfac220.
- Utami SS, Erawati M, Dewi NS. Internal protective factors that affect the resilience of hemodialysis patients: scoping review. *J Ber Ilmu Keperawatan.* 2023;16(2):309-19. doi:10.23917/bik.v16i2.1738
- Eghtedar S, Chalak Z, Parizad N, Alinezhad V. Training health-promoting behaviors based on pender's model on psychological well-being to hemodialysis patients. *Nurs Midwifery J.* 2022;20(4):344-58. doi:10.52547/unmf.20.4.344.
- Xie C, Zhou L, Sun C, Zhang Y, Li Y. The cross-cultural adaptation and psychometric evaluation of a learned helplessness scale for maintenance hemodialysis patients in China (LHS-MHD-C). *Res Nurs Health.* 2023;46(2):251-62. doi:10.1002/nur.22298.
- Kim H, Jeong IS, Cho MK. Effect of treatment adherence improvement program in hemodialysis patients: a systematic review and meta-analysis. *Int J Environ Res Public Health.* 2022;19(18):11657. doi:10.3390/ijerph191811657.
- Abdel-Salam AA, Sharshour SM, Aziz SMAE. Effect of evidence based guidelines on nurses' performance and attitude regarding care of children undergoing plasmapheresis. *Tanta Sci Nurs J.* 2023;31(4):192-221. doi:10.21608/tsnj.2023.328678.
- Yuliawati AN, Ratnasari PMD, Maharani NLP. Quality of life in end-stage renal disease patients undergoing hemodialysis and its affecting factors in a hemodialysis unit of general hospital denpasar. *Borneo J Pharm.* 2023;6(3):320-9. doi:10.33084/bjop.v6i3.3907.
- Alshammari B, Noble H, McAneney H, Alshammari F, O'Halloran P. Caregiver burden in informal caregivers of patients in Saudi Arabia receiving hemodialysis: a mixed-methods study. *Healthcare.* 2023;11(3):366. doi:10.3390/healthcare11030366.
- Kemnitz M, Antonini M, Delmas P. Relationship among symptoms, quality of life, and complementary and alternative medicines use among patients undergoing hemodialysis in French-speaking Switzerland. *BMC Complement Med Ther.* 2023;23(1):174. doi:10.1186/s12906-023-04001-z.
- Huang M, Lv A, Yang F, Tang Y, Li Y, Hua Y, et al. Impacts of cognition of exercise on physical activity participation in hemodialysis patients. *Semin Dial.* 2023;36(5):366-73. doi:10.1111/sdi.13138.
- Bellier-Teichmann T, Roulet-Schwab D, Antonini M, Brandalesi V, O'Reilly L, Cara C, et al. Transformation of clinical nursing practice following a caring-based educational intervention: a qualitative perspective. *SAGE Open Nurs.* 2022;8:23779608221078100. doi:10.1177/23779608221078100.
- Powathil GG, Kr A. The experience of living with a chronic illness: a qualitative study among end-stage renal disease patients. *J Soc Work End Life Palliat Care.* 2023;19(3):190-208. doi:10.1080/15524256.2023.2229034.
- Bossola M, Pepe G, Antocicco M, Severino A, Di Stasio E. Interdialytic weight gain and educational/cognitive, counseling/behavioral and psychological/affective interventions in patients on chronic hemodialysis: a systematic review and meta-analysis. *J Nephrol.* 2022;35(8):1973-83. doi:10.1007/s40620-022-01450-6.
- Monem RFA, Abdullah WH, Atallah HR, Henedy WM. Effect of nursing intervention on controlling interdialytic weight and vascular access complications among patients undergoing hemodialysis. *Menoufia Nurs J.* 2022;7(2):351-66. doi:10.21608/menj.2022.272898.
- Sousa H, Ribeiro O, Costa E, Christensen AJ, Figueiredo D. Establishing the criterion validity of self-report measures of adherence in hemodialysis through associations with clinical biomarkers: A systematic review and meta-analysis. *PLoS One.* 2022;17(10):e0276163. doi:10.1371/journal.pone.0276163.
- Alhamad A, Almulhim MY, Alburayh AA, Alsaad RA, Alhajji AM, Alnajjar JS, et al. Factors affecting adherence to hemodialysis therapy among patients with end-stage renal disease attending in-center hemodialysis in Al-Ahsa Region, Saudi Arabia. *Cureus.* 2023;15(10):e46701. doi:10.7759/cureus.46701.
- Mailani F, Huriani E, Muthia R, Rahmiwati R. Self-management and relating factors among chronic kidney disease patients on hemodialysis: an Indonesian study. *Nurse Media J Nurs.* 2023;13(1):109-20. doi:10.14710/nmjn.v13i1.48708.
- Nursalam N, Triharini M, Azza A, Chanif C, Wahyuni D, Machmudah M, et al. The relationship between spiritual quality and self-adaptation in cancer patients receiving chemotherapy. *Scr Med.* 2023;54(3):261-6. doi:10.5937/scriptamed54-44234.
- Pranata S, Wu SFV, Purwadi H, Gede D, Putra S, Wulandari H. Exploring of self-management experience among health professional survivors from coronavirus disease 2019 in West Nusa Tenggara, Indonesia. 2021;9:19-27. doi:10.3889/oamjms.2021.6443.
- Huda N, Nurchayati S, Pranata S, Sansuwito T. Religion and spirituality in coping with cancer: a literature review. 2022;14(October):40-45. doi:10.31674/mjn.2022.v14i02.025.
- Gela D, Mengistu D. Self-management and associated factors among patients with end-stage renal disease undergoing hemodialysis at health facilities in Addis Ababa, Ethiopia. *Int J Nephrol Renovasc Dis.* 2018;11:329-36. doi:10.2147/IJNRD.S184671.



23. Havas K, Douglas C, Bonner A. Person-centred care in chronic kidney disease: a cross-sectional study of patients' desires for self-management support. *BMC Nephrol.* 2017;18(1):1-9. doi:10.1186/s12882-016-0416-2.
24. Jung WH, Kim HY. Promoting foot self-care in type 2 diabetes mellitus patients receiving hemodialysis based on the information-motivation-behavioral skills model. *Nurs Health Sci.* 2023;25(4):721-31. doi:10.1111/nhs.13067.
25. Hejazi SS, Hosseini M, Ebadi A, Majd HA. Motivations for providing care in family caregivers of hemodialysis patients: A qualitative content analysis study. *Iran J Heal Educ Heal Promot.* 2022;10(1):58-69. doi:10.52547/ijhehp.10.1.58.
26. Tusnia D, Priyanti RP, Satus AS. [The correlation of work load with nurse 's caring behavior according to client 's perception at Igd Rsud Jombang]. *J Ilm Keperawatan.* 2017;3(2):30-36. Indonesian.
27. Wang SL, Chiu YW, Kung LF, Chen TH, Hsiao SM, Hsiao PN, et al. Patient assessment of chronic kidney disease self-care using the chronic kidney disease self-care scale in Taiwan. *Nephrology (Carlton).* 2019 Jun;24(6):615-21. doi: 10.1111/nep.13475.
28. Li H, Jiang Y fang, Lin CC. Factors associated with self-management by people undergoing hemodialysis: A descriptive study. *Int J Nurs Stud.* 2014;51(2):208-16. doi:10.1016/j.ijnurstu.2013.05.012.
29. Lai PC, Wu SV, Alizargar J, Pranata S, Tsai JM, Hsieh NC. Factors influencing self-efficacy and self-management among patients with pre-end-stage renal disease (Pre-ESRD). *Healthcare (Basel).* 2021 Mar 2;9(3):266. doi: 10.3390/healthcare9030266.
30. Agarwal R, Andersen MJ. Correlates of systolic hypertension in patients with chronic kidney disease. *Hypertension.* 2005;46(3):514-20. doi: 10.1161/01.HYP.0000178102.85718.66.
31. Liu X, Wang X, Ma H, Zhang W. Mechanisms underlying acupuncture therapy in chronic kidney disease: A narrative overview of preclinical studies and clinical trials. *Front Nephrol.* 2022;2:1006506. doi:10.3389/fneph.2022.1006506.
32. Hercz D, Jiang SH, Webster AC. Interventions for itch in people with advanced chronic kidney disease. *Cochrane Database Syst Rev.* 2020;2020(12):cd011393. doi:10.1002/14651858.CD011393.pub2.
33. Tsai MH, Hsu CY, Lin MY, Yen MF, Chen HH, Chiu YH, et al. Incidence, prevalence, and duration of chronic kidney disease in Taiwan: results from a community-based screening program of 106,094 individuals. *Nephron.* 2018;140(3):175-84. doi:10.1159/000491708.
34. Saffer T, Mesiwala A. Systematic CKD care approaches: a potential solution for the costly ESRD Program. *Kidney Med.* 2022;5(2):100581. doi:10.1016/j.xkme.2022.100581.
35. Soesanto E, Yanto A, Irani N, Pranata S, Rejeki S, Sasmito P. Job satisfaction among primary health care nurses. *Int J Public Heal Sci.* 2022;11(4):1416-23. doi:10.1159/ijphs.v11i4.21529.
36. Bjørk IT, Hamilton GA. Clinical decision making of nurses working in hospital settings. *Nurs Res Pract.* 2011;2011:1-8. doi:10.1155/2011/524918.
37. Wade R. Embedding the A-EQUIP model of restorative supervision in a critical care unit by professional nurse advocates. *Br J Nurs.* 2023;32(15):744-7. doi: 10.12968/bjon.2023.32.15.744.
38. Ahmed FR, Timmins F, Dias JM, Al-Yateem N, Gamil R, Subu MA, et al. Floating to intensive care units: Nurses' messages for instant action to promote patient safety. *Nurs Crit Care.* 2023 Nov;28(6):902-12. doi: 10.1111/nicc.12907.
39. Fallahnezhad T, Aghaie B, Norouzadeh R, Ebadi A, Abbasinia M. The challenges of nursing presence at the patient's bedside from the perspective of nurses: a qualitative study. *Ethiop J Health Sci.* 2023;33(2):281-90. doi:10.4314/ejhs.v33i2.13.
40. Le A, Lee MA, Wilson J. Nursing handoff education: An integrative literature review. *Nurse Educ Pract.* 2023;68:103570. doi:10.1016/j.nepr.2023.103570.
41. Wilson G, Ferrer J. 2005. Assessment and management of patients with vascular disorders and problems of peripheral circulation. In: Farrell M, Smeltzer SC, Bare BG, eds. Smetzer & Bare's textbook of medical-surgical nursing: First Australian/New Zealand Edition. Broadway, NSW, Australia: Lippincott Williams & Wilkins. pp. 819-857.
42. Sharifirad G, Azadbakht L, Feizi A, Kargar M, Mohebi S. Review the key role of self-efficacy in diabetes care. *J Educ Health Promot.* 2013;2(1):36. doi:10.4103/2277-9531.115827.
43. Sankar Raj VM, Patel P. The Role of a clinical psychologist in pediatric nephrology. *Pediatr Clin North Am.* 2022;69(5):941-9. doi:10.1016/j.pcl.2022.05.007.
44. Sharma S, Alexander KE, Green T, Wu ML, Bonner A. Energy conservation education intervention for people with end-stage kidney disease receiving haemodialysis (EVEREST): protocol for a cluster randomised control trial. *BMJ Open.* 2022;12(2):e056544. doi:10.1136/bmjopen-2021-056544.
45. Kalantar-Zadeh K, Lockwood MB, Rhee CM, Tantisattamo E, Andreoli S, Balducci A, et al. Patient-centred approaches for the management of unpleasant symptoms in kidney disease. *Nat Rev Nephrol.* 2022;18(3):185-98. doi:10.1038/s41581-021-00518-z.
46. Camedda C, Bici G, Magi CE, Guzzon A, Longobucco Y. The therapeutic nurse-patient relationship in hemodialysis: a pilot mixed-method study on the perceived quality of nurses' attitudes and caring behaviors. *Nurs Reports.* 2023;13(3):990-1003. doi:10.3390/nursrep13030087.
47. Sawma T, Sanjab Y. The association between sense of coherence and quality of life: a cross-sectional study in a sample of patients on hemodialysis. *BMC Psychol.* 2022;10(1):100. doi:10.1186/s40359-022-00805-9.
48. Murea M, Highland BR, Yang W, Dressler E, Russell GB. Patient-reported outcomes in a pilot clinical trial of twice-weekly hemodialysis start with adjuvant pharmacotherapy and transition to thrice-weekly hemodialysis vs conventional hemodialysis. *BMC Nephrol.* 2022;23(1):322. doi:10.1186/s12882-022-02946-w.
49. Asra A, Susila A, Rochman D, Rahayu TG, Lestari M. Adherence to hemodialysis therapy, self-efficacy and quality of life of chronic kidney disease patients in the hemodialysis room. *KnE Soc Sci.* 2023;8(14):16-24. doi:10.18502/kss.v8i14.13812.