Analysis of Determinants of Hemodialysis Patient Satisfaction in Nursing Services: A Literature Review

Evalatifah Nurhayati[1*], Elis Anggeria[2] , Tiarnida Nababan[3]
[1]Master of Nursing Program Faculty of Nursing and Midwifery, Universitas Prima Indonesia
[2,3]Pui-PT Palliative Care, Universitas Prima Indonesia, Medan
Email: evalatifahnurhayati@unprimdn.ac.id

ABSTRACT

Patient satisfaction is an essential indicator of the quality of nursing care, particularly among individuals undergoing hemodialysis treatment. This literature review aims to identify the determinants influencing hemodialysis patients' satisfaction with nursing services. Literature searches were conducted through PubMed, ScienceDirect, Scopus, Google Scholar, and ResearchGate for articles published between 2021 and 2025. From a total of 2,967 articles initially identified, nine studies met the inclusion criteria. The analysis revealed two primary factors significantly associated with patient satisfaction: nurses' caring behavior and therapeutic communication. Caring behavior includes empathy, attention, support, and the ability of nurses to meet both physical and emotional patient needs, while therapeutic communication refers to professional interactions that build trust and enhance patient understanding of the care process. Both factors were found to improve patients' perceptions of service quality and promote adherence to hemodialysis treatment. This review highlights the importance of strengthening caring competencies and therapeutic communication skills as key strategies to enhance the quality of nursing care in hemodialysis units.

Keywords: patient satisfaction, hemodialysis, caring behavior.

INTRODUCTION

Evaluating patient satisfaction is a crucial element in assessing the effectiveness and sustainability of healthcare service management (Woo & Choi, 2021). Patient satisfaction is often used as a primary parameter to measure the success of a medical service system. Through their experiences during the care process, patients are able to assess the extent to which the nursing services they receive align with their needs and expectations (Sugianto et al., 2025). Moreover, patient satisfaction also serves as an important indicator for evaluating the quality of nursing care provided by healthcare professionals (Faridasari et al., 2021). Therefore, the level of patient satisfaction reflects the overall quality of nursing care delivered in hospital settings (Siregar et al., 2021).

As the frontline of the healthcare system, nurses hold a highly strategic role in ensuring the achievement of patient satisfaction. Inefficient nursing performance or a decline in service quality can directly lead to patient dissatisfaction (Lasa et al., 2021). Previous studies have revealed that optimal nursing service quality can increase the likelihood of patient satisfaction

by up to eight times compared to low-quality services (Widiastuti et al., 2024). In addition, patients' trust in healthcare providers both physicians and nurses also serve as an important determinant of patient satisfaction, with factors such as knowledge, courtesy, and professionalism contributing significantly (Gunari et al., 2022).

Hemodialysis is a renal replacement therapy that functions to remove metabolic waste products and maintain electrolyte balance through a blood filtration process using a semipermeable membrane. This procedure is performed regularly, typically twice a week, with each session lasting approximately five to six hours, and continues until the patient undergoes kidney transplantation. Hemodialysis units have distinct characteristics compared to inpatient wards, as the interaction time between patients and healthcare providers is relatively shorter, yet still requires intensive monitoring and attentive nursing care (Silitonga et al., 2022).

For individuals with chronic kidney disease, hemodialysis is not a curative intervention but rather a therapeutic modality aimed at maintaining and improving both quality of life and life expectancy. However, this procedure often leads to psychological stress due to restrictions on dietary intake, fluid consumption, physical activity, and significant changes in daily lifestyle. Therefore, the role of nurses in providing holistic and empathic nursing care is crucial to support patients in adapting to these changes and maintaining adherence to the prescribed therapeutic regimen (Sanli & Herlina, 2022).

Maintaining the quality of nursing care is a fundamental responsibility of nurses in efforts to improve hospital service standards while encouraging patient adherence to ongoing therapy. To achieve this, it is crucial to identify the various determinants that influence patient satisfaction with nursing care, particularly among individuals undergoing hemodialysis.

METHODS

This study employs a literature review approach focusing on the identification of determinant factors influencing hemodialysis patient satisfaction within the context of nursing services. The analyzed literature consists of scientific publications in Indonesian and English published between 2021 and 2025. The article search was conducted online through several academic databases, including PubMed, ScienceDirect, Scopus, Google Scholar, and ResearchGate, using the keywords "Hemodialysis Patient Satisfaction in Nursing Services" and "Patient Satisfaction in Hemodialysis Nursing Services."

From the initial search results, a total of 2,967 articles related to the research topic were identified. A selection process was then conducted based on their relevance to the research objectives, resulting in 60 articles deemed suitable. After a final screening stage, only 9 articles were deemed most relevant, specifically those examining the relationship between nursing services and patient satisfaction among individuals undergoing hemodialysis.

RESULTS

A total of nine research articles were selected and analyzed in this literature review. All studies employed a quantitative approach using a cross-sectional design. Most of the studies involved fewer than 100 participants, with only one article including the study conducted by Widiastuti et al. (2024) involving more than 100 respondents, totaling 128 participants. The results of the article search are presented in the following table:

No	Researcher and Year	Title of Study	Type and Research Design	Sample	Results
1	Widiastuti et al. (2024b)	Determinants of Nursing Service Quality on Patient Satisfaction Patients at the Jakarta Islamic Hospital Cempaka Putih	Quantitative research with a cross-sectional design.	128	High-quality nursing services were found to be the most dominant variable influencing patient satisfaction. High-quality nursing care was associated with an 8.3-fold increase in the likelihood of achieving patient satisfaction compared to low-quality services.
2	Krismiadi and Wunblolong (2023a)	The Relationship Between Nurses' Caring Behavior and Patient Satisfaction Undergoing Hemodialysis Therapy in the Hemodialysis Room	Quantitative research with a cross-sectional design.	45	There was a significant relationship between nurses' caring behavior and patient satisfaction, as indicated by a statistical significance value ($p = 0.022$), which is below the $\alpha = 0.05$ threshold. This finding demonstrates that caring behavior contributes meaningfully to patient satisfaction.
3	Sundari et al. (2024a)	The relationship between nurses' therapeutic communication	Quantitative research with a cross-	86	Therapeutic communication performed by nurses was significantly

		and patient satisfaction in the Hemodialysis Installation of Panembahan Senopati Bantul Regional Hospital	sectional design.		associated with patient satisfaction in the Hemodialysis Unit.
4	Sari and Suprayitno (2024a)	The Relationship between Nurses' Caring Behavior and Hemodialysis Patient Satisfaction at PKU Muhammadiyah Hospital Yogyakarta	Quantitative study using a cross-sectional approach.	68	A study conducted at PKU Muhammadiyah Yogyakarta Hospital demonstrated a significant correlation between nurses' caring behavior and patient satisfaction
5	Tetraningsih et al. (2025)	The Relationship Between Nurses' Caring Behavior and Patient Satisfaction Undergoing Hemodialysis Therapy in the Hemodialysis Room of Diponegoro Dua Satu Hospital, Klaten	Correlational research with a cross-sectional approach.	79	The analysis revealed a p-value of 0.000, which is below the significance level of $\alpha = 0.05$, with a correlation coefficient of 0.556. These results indicate a significant and strong positive relationship between nurses' caring behavior and satisfaction levels among patients undergoing hemodialysis.
6	Inayati et al. (2022)	Nurses' Caring Behaviors Regarding the Satisfaction Level of Patients Undergoing Hemodialysis During the COVID-19 Pandemic	Quantitative research with a cross-sectional approach.	31	The study findings indicated a significant association between nurses' caring behavior and hemodialysis patient satisfaction during the COVID-19 pandemic, as reflected by a p-value of 0.032.
7	Marlina and Elon (2022a)	Description of Hemodialysis Unit Patient Satisfaction Levels Regarding	Quantitative study with a cross-sectional approach.	52	The study showed that all five dimensions of nursing services tangibles, reliability, responsiveness, assurance, and empathy

		Nursing Services			had mean scores above 4.5. This indicates that nursing services in the hemodialysis unit have optimally met patient expectations and needs.
8	Kurniasari et al. (2024)	The Influence of Therapeutic Communication on the Quality of Service in the Hemodialysis Room at Indriati Solo Baru Hospital	Quantitative research using a cross-sectional approach.	50	Study showed 72% of nurses had good communication and 78% of patients were satisfied. Statistical analysis confirmed a significant influence of therapeutic communication on service quality at Indriati Solo Baru Hospital (p=0.000), highlighting the vital role of nurse-patient interaction
9	Pangestika et al. (2023)	The Relationship Between the Application of Nurse Therapeutic Communication and Patient Satisfaction Undergoing Hemodialysis Therapy at Rawalumbu Bekasi Hospital In 2023	Quantitative research with a cross-sectional design.	52	Analysis found 54% effective communication and 57.7% moderate satisfaction. A Chi-square test (p=0.002) confirmed a significant relationship between nurse therapeutic communication and patient satisfaction at Rawalumbu Hospital in 2023.

DISCUSSION

Patient Satisfaction in Hemodialysis Nursing Services

Patient satisfaction is one of the primary indicators for assessing and improving the quality of healthcare services. Patients who feel satisfied with the care they receive tend to exhibit higher adherence to medical recommendations and follow therapeutic plans as advised by healthcare professionals. Conversely, low levels of satisfaction may reduce patient compliance and can even lead to patients switching to other healthcare providers. Therefore, evaluating patient

satisfaction is a crucial component in ensuring service effectiveness and the overall success of hospital management (Woo & Choi, 2021).

The level of patient satisfaction reflects their perception of nurses' performance in meeting expectations, particularly in the aspect of therapeutic communication. When the nursing care provided aligns with or even exceeds patient expectations, satisfaction levels increase significantly. Interpersonal interactions delivered by nurses through friendliness, empathy, and effective communication play an essential role in creating emotional comfort during the care process. Overall, the quality of nursing services is a key factor influencing patient satisfaction, with high-quality care characterized by effective communication, active listening, and sensitivity in responding to patient concerns. These factors directly contribute to improving patient satisfaction with healthcare services (Sundari et al., 2024).

Patient satisfaction is a primary outcome of high-quality healthcare services and serves as an essential indicator for improving service quality. Patients who are satisfied with the care they receive generally exhibit higher adherence to medical advice and follow treatment plans as recommended. Conversely, dissatisfaction with healthcare services can lead to negative consequences, such as decreased treatment compliance, inconsistency in following medical instructions, and even a tendency to seek care from alternative providers. Inayati et al. (2022) reported that the majority of respondents perceived nurses' caring behavior as adequate, which coincided with patients expressing high satisfaction. This correlation confirms that the implementation of consistent caring behaviors serves as a critical indicator for achieving optimal patient satisfaction in hemodialysis care.

Based on the analysis of the nine reviewed articles, most studies indicated that patient satisfaction levels were categorized as fairly good. However, one study reported that 50.8% of respondents expressed dissatisfaction with nursing services. This finding suggests that the proportion of dissatisfied patients was higher than those who were satisfied, indicating a gap between patient expectations and the quality of care they received (Widiastuti et al., 2024).

The evaluation of hemodialysis patient satisfaction showed that the majority of respondents fell into the high-satisfaction category, while the remaining respondents were in the moderate category (Sari & Suprayitno, 2024). This finding is consistent with other studies indicating that the five dimensions of nursing service quality tangibles, reliability, responsiveness, assurance, and empathy. These results demonstrate that nursing services in the hemodialysis unit have met patient expectations. Overall, it can be concluded that high-quality nursing care directly

contributes to increased patient satisfaction, as the services provided align with patient expectations (Marlina & Elon, 2022).

Various studies have shown that patients place greater value on affective aspects of nursing care such as nurses' empathy and attentiveness compared to technical skills alone. In the context of this study, the quality of nursing services perceived by patients is still considered suboptimal. Patients' perceptions of service quality encompass several important dimensions, including the fulfillment of basic needs, nurses' professional appearance, readiness to provide care, clinical competence, and the assurance of safety and comfort within the care environment (Widiastuti et al., 2024).

Nursing services are an integral component of the hospital healthcare system and are continuously directed toward improving service quality. The quality of these services is reflected when the care provided meets or exceeds patient expectations. High-quality nursing care plays a crucial role in achieving patient satisfaction (Widiastuti et al., 2024). Moreover, optimal nursing services are closely associated with the overall quality of healthcare delivery, patient health status, and patient adherence to hemodialysis treatment regimens (Marlina & Elon, 2022).

Determinants of Hemodialysis Patient Satisfaction in Nursing Services

Based on the analysis of several articles, it was found that the primary factors influencing hemodialysis patient satisfaction in nursing services are nurses' caring behavior and therapeutic communication. Caring behavior is a fundamental element in nursing practice because it reflects the quality of interpersonal interactions between nurses and patients, which directly affects service quality and patient satisfaction (Faridasari et al., 2021). Patients' evaluation of nurses' caring behavior largely depends on their perceptions of nurses' attitudes, empathy, and responsiveness during the care process. When nurses demonstrate a high level of concern and respond efficiently to patient needs, it fosters a positive professional image and enhances patients' perceptions of service quality (Tetraningsih et al., 2025). Furthermore, the quality of caring behavior demonstrated by nurses is directly associated with patient and family satisfaction. High levels of empathy and attentiveness elicit positive responses from patients regarding the care they receive, whereas suboptimal caring behavior can diminish patients' perceptions of nursing service quality (Krismiadi & Wunblolong, 2023).

Based on the results of measurements using the caring questionnaire, several dimensions of caring behavior were assessed, including collaboration in problem-solving, consistent

attentiveness, respect for human values, supportive attitudes, appreciation of individual uniqueness, the creation of a therapeutic environment conducive to healing, fulfillment of affiliation needs, and fulfillment of basic human needs. Among these indicators, collaboration in problem-solving received the highest score in the "good" category at 62%, followed by full attentiveness at 51%. These findings indicate that nurses have consistently demonstrated caring behavior, particularly through supporting patients' beliefs, providing comfort, employing empathetic communication, and proactively anticipating patient needs. The implementation of these caring elements contributes to building trust and fostering a therapeutic relationship between nurses and hemodialysis patients (Sari & Suprayitno, 2024).

Therapeutic communication is a form of professional communication carried out intentionally by nurses with the aim of supporting the healing process and enhancing patient well-being. This form of communication plays a crucial role in establishing a trusting and empathetic relationship between nurses and patients, which serves as the foundation for effective therapeutic interactions. Through the implementation of effective therapeutic communication, nurses are able to gain a deeper understanding of patients' physical and psychological needs, thereby ensuring that the nursing care provided meets those needs comprehensively and optimally (Deniati et al., 2022).

Therapeutic communication is a professional process aimed at building a supportive relationship between nurses and patients, while also reflecting the quality of nursing care provided. This process consists of four main stages pre-interaction, orientation, working, and termination each of which plays an essential role in facilitating effective interactions that focus on meeting patient needs (Pebrianti et al., 2023). In practice, healthcare providers must develop effective communication skills by fostering positive, friendly, empathetic, and attentive attitudes during every interaction with patients. Effective communication not only contributes to improved service quality but also instills a sense of being valued in patients, thereby encouraging them to utilize healthcare services again (Kurniasari et al., 2024). Research findings indicate that therapeutic communication has a significant contribution to enhancing the quality of patient care (Pangestika et al., 2023). Similar results were reported in the hemodialysis unit of Indriati Solo Baru Hospital, demonstrating a meaningful influence between therapeutic communication and service quality. This confirms that the effectiveness of nurse communication is closely associated with the perceived quality of care (Kurniasari et al., 2024). Thus, it can be concluded that therapeutic communication is one of the key determinants of patient satisfaction in nursing services.

CONCLUSION

Based on the analysis of the various journals included in this study, it can be concluded that nurses' caring behavior and therapeutic communication are the two primary factors that significantly influence patient satisfaction with nursing services. These aspects not only reflect nurses' professional competence but also play a vital role in fostering therapeutic relationships that support the patient's healing process. Therefore, it is recommended that hospital management place particular emphasis on strengthening these two components through continuous training, clinical supervision, and regular evaluation of nursing practices to enhance the quality of services and improve patient satisfaction during care.

LIMITATION

This review encounters specific constraints that should be acknowledged, primarily regarding the restricted volume of finalized literature, as only nine studies satisfied the inclusion criteria out of the initial search. This limited sample size may affect the universality of the conclusions and their application across diverse global healthcare settings or cultural contexts. Furthermore, by narrowing the timeframe strictly to publications between 2021 and 2025, the analysis prioritizes recent data but may inadvertently exclude foundational insights from earlier research. Finally, the study explicitly concentrated on nurse-patient interactions—specifically caring behaviors and therapeutic communication—which means other potential variables influencing hemodialysis patient satisfaction, such as hospital infrastructure, waiting times, or administrative processes, were not comprehensively examined in this specific analysis.

REFERENCE

Deniati, K., Simamora, R. S., B, D. N. F. H., Pelawi, A. M. P., Meliyana, E., Gea, N. Y. K., Agustina, L., Dedu, B. S. S., & Indrawati, L. (2022). *Komunikasi terapeutik dalam layanan keperawatan*. Penerbit NEM.

Faridasari, I., Herlina, L., Supriatin, S., & Pirianiti, F. (2021). Hubungan antara caring dengan tingkat kepuasan pasien dalam pelayanan keperawatan. *Jurnal Kesehatan*, *12*(2), 137–144. https://doi.org/10.38165/jk.v12i2.252

Gunari, H., Megawati, & Theo, D. (2022). Determinants of satisfaction of inpatients at Datu Beru Takengon Regional General Hospital. *Journal La Medihealtico*, *3*(3), 201–213. https://doi.org/10.37899/journallamedihealtico.v3i3.633

Inayati, A., Hasanah, U., Pakarti, A. T., Sari, S. A., Utami, I. T., Dewi, T. K., & Livana, P. H. (2022). Perilaku caring perawat terhadap tingkat kepuasan pasien yang menjalani hemodialisis pada masa pandemi Covid-19. *Jurnal Ilmiah Permas: Jurnal Ilmiah*

STIKES Kendal, *12*(3), 485–490.
https://journal2.stikeskendal.ac.id/index.php/PSKM/article/view/252

Krismiadi, D., & Wunblolong, F. P. B. (2023). Hubungan perilaku caring perawat dengan kepuasan pasien yang menjalani terapi hemodialisis di ruang hemodialisis. *Jurnal Keperawatan Florence Nightingale*, *6*(2), 59–64. https://doi.org/10.52774/jkfn.v6i2.119

Kurniasari, D., Rumondang, P. R., & Sabatini, M. S. N. (2024). Pengaruh komunikasi terapeutik terhadap mutu pelayanan di ruang hemodialisa Rumah Sakit Indriati Solo Baru. *Jurnal Surya Muda*, *6*(1), 54–65. https://doi.org/10.38102/jsm.v6i1.174

Lasa, I., Salesman, F., & Tage, P. S. K. (2021). Pengaruh kualitas pelayanan keperawatan terhadap kepuasan pasien baru di ruang Instalasi Gawat Darurat RSUD Kefamenanu. *CHMK Nursing Scientific Journal*, *5*(1), 6–17. https://media.neliti.com/media/publications/366986-none-3c3722d4.pdf

Marlina, A. M., & Elon, Y. (2022). Gambaran tingkat kepuasan pasien unit hemodialisa terhadap pelayanan perawat. *Journals of Ners Community*, *13*(5), 588–594. https://doi.org/10.55129/jnerscommunity.v13i5.2209

Pangestika, F. M., Pelawi, A. M. P., & Bunga, D. N. F. H. (2023). The relationship between the application of nurse therapeutic communication and patient satisfaction undergoing hemodialysis therapy at Rawalumbu Bekasi Hospital in 2023. *Jurnal Medicare*, *2*(3), 177–186. https://doi.org/10.62354/jurnalmedicare.v2i3.88

Pebrianti, F., Rubianti, R., & Obar. (2023). Pengaruh komunikasi terapeutik perawat terhadap kepuasan pasien. *Jurnal Ilmiah Kesehatan Pernus*, *1*(1), 24–31. https://jurnal-pernus.id/index.php/JIKP/article/view/2

Sanli, P. D., & Herlina, S. (2022). Hubungan caring perawat dengan tingkat kecemasan pada pasien hemodialisa dengan COVID-19 di RSUD Kota Jakarta. *Jurnal Keperawatan Widya Gantari Indonesia*, *6*(2), 96–105. https://doi.org/10.52020/jkwgi.v6i2.3272

Sari, E. I., & Suprayitno, E. (2024). Hubungan perilaku caring perawat terhadap kepuasan pasien hemodialisis di RS PKU Muhammadiyah Yogyakarta. *Journal Nursing Care*, *10*(2), 125–134. https://doi.org/10.52365/jnc.v10i2.1256

Silitonga, E., Pardede, J. A., Sinaga, T. R., & Tambunan, F. (2022). Mutu pelayanan dan kepuasan pasien haemodialisis. *Jurnal Penelitian Perawat Profesional*, *4*(1), 307–316. https://doi.org/10.37287/jppp.v4i1.847

Siregar, H. K., Lipin, L., & Pipin, A. (2021). Literature review: Kepuasan pasien rawat inap terhadap mutu pelayanan kesehatan di rumah sakit. *Jurnal Kesehatan Holistic*, *5*(2), 18–30. https://doi.org/10.33377/jkh.v5i2.107

Sugianto, E. Y., Khotimah, H., & Astutik, S. (2025). Studi fenomenologi: Kepuasan pasien terhadap pelayanan keperawatan dengan asuransi BPJS PBI. *Journal of Nursing Science Research*, *2*(1), 17–26. https://doi.org/10.33862/jnsr.v2i1.577

Sundari, L., Masitoh, R., & Kurniasih, Y. (2024). Hubungan komunikasi terapeutik perawat terhadap kepuasan pasien di Instalasi Hemodialisa RSUD Panembahan Senopati Bantul. *Prosiding Seminar Nasional Penelitian Dan Pengabdian Kepada Masyarakat LPPM*

Universitas 'Aisyiyah Yogyakarta, *2*, 1141–1148.
https://proceeding.unisayogya.ac.id/index.php/prosemnaslppm/article/view/461

Tetraningsih, Indriyati, Widiyono, & Suwarni, A. (2025). Hubungan perilaku caring perawat dengan kepuasan pasien yang menjalani terapi hemodialisis di ruang hemodialisis RSU Diponegoro Dua Satu Klaten. *Jurnal Pembangunan Dan Kemandirian Kesehatan*, *2*(2), 50–60. https://ejournal.melekliterasi.com/index.php/JPKK/article/view/165

Widiastuti, E., Zuryati, M., Sunandar, M. A., Ernirita, E., Awaliah, A., Idriani, I., & Setiyono, E. (2024). Determinan mutu pelayanan keperawatan terhadap kepuasan pasien di Rumah Sakit Islam Jakarta Cempaka Putih. *Jurnal Ilmiah Keperawatan (Scientific Journal of Nursing)*, *10*(1), 47–63. https://doi.org/10.33023/jikep.v10i1.1827

Woo, S., & Choi, M. (2021). Medical service quality, patient satisfaction and intent to revisit: Case study of public hub hospitals in the Republic of Korea. *PLoS ONE*, *16*(6), e0252241. https://doi.org/10.1371/journal.pone.0252241