International Journal of Multidisciplinary Research and Publications
ISSN (Online): 2581-6187

Impact of Reliability and Responsiveness in Spiritual Care on Patient Satisfaction in the Hemodialysis Unit of Dr. Goeteng Tarunadibrata Purbalingga Regional General Hospital, Indonesia

Aris Fitriyani[1], Budi Aji[2], Novan Ardy Wiyani[3], Supadi [4]
[1]Students of the Islamic Studies Doctoral Program UIN SAIZU Purwokerto
[2] Lecturer in the Department of Public Health, Faculty of Health Sciences, Jenderal Soedirman University Purwokerto
[3]Lecturer of the Islamic Studies Doctoral Program UIN SAIZU Purwokerto
[4]Lecturer of the Purwokerto Nursing Study Program, Semarang Health Polytechnic
Email address: arisfitriyani39@gmail.com

Abstract—Background *Spiritual care services have become a critical component in enhancing overall healthcare quality by addressing patients' spiritual needs. Service quality, measured through the dimensions of reliability and responsiveness, has been demonstrated to significantly influence patient satisfaction. This study aims to examine the role of reliability and responsiveness in spiritual care services to improve patient satisfaction, a key indicator of healthcare delivery success. Through this approach, healthcare services are expected to adopt a more holistic model that optimally meets both the physical and spiritual needs of patients.*. ***Research Objectives****: This study aims to examine the influence of service quality dimensions, particularly reliability and responsiveness, within the context of spiritual care services on patient satisfaction. Research* ***Methods****: This quantitative study employs group experimental design consisting of intervention and control groups. The sample includes two groups of 30 respondents each, selected through purposive sampling. Data analysis involved paired sample t-tests to compare patient satisfaction scores before and after intervention, and multiple linear regression analysis to assess the effect of patient satisfaction dimensions on service satisfaction. Statistical analysis was conducted using SPSS at a 0.05 significance level.* ***Results and discussion****: The findings indicate a significant increase in the mean patient satisfaction of the intervention group from 62.5 to 124.1 following the spiritual care intervention (p=0.000), whereas no significant change was observed in the control group (p=0.855). Multiple linear regression revealed that all service quality dimensions (tangible, reliability, responsiveness, assurance, empathy) positively and significantly influenced service satisfaction in the intervention group, with an R^2 of 98.8%. Reliability and responsiveness exhibited the most dominant effects, evidenced by the highest beta values of 0.553 and 0.423, respectively. This suggests that dependable and prompt service responsiveness critically contribute to enhancing patient satisfaction in the context of spiritual care. The discussion highlights the importance of integrating spiritual care to reinforce reliability and responsiveness aspects within healthcare services for improved overall quality and patient satisfaction.* ***Conclusion****: Spiritual care services enhanced by improvements in reliability and responsiveness dimensions significantly increase patient satisfaction. Strengthening these aspects within spiritual care is a key strategy for elevating service quality and achieving successful patient care outcomes in healthcare facilities.*

Keywords*—Spiritual Care, Patient Satisfaction, Hemodialysis Unit.*

I. INTRODUCTION

Spiritual care is increasingly recognized as a vital component of holistic healthcare, particularly for patients undergoing chronic treatments such as hemodialysis. It addresses patients' spiritual needs and aims to improve their psychological well-being and overall quality of life (Reig-Ferrer et al., 2012). Recognizing spiritual issues in healthcare promotes a patient-centered approach that goes beyond physical treatments.

Spiritual care has emerged as an essential component in holistic healthcare, addressing not only physical but also psychological, social, and spiritual needs of patients. Recent studies demonstrate that spiritual care improves patient well-being, coping abilities, and overall quality of life (Khouzani et al., 2025). This underscores spiritual care's critical role in healthcare systems worldwide.

Hemodialysis patients often face numerous physical and emotional challenges, including uncertainty, depression, and reduced quality of life. Spiritual care has been shown to provide coping mechanisms that enhance mental health and foster resilience in this population (Sierra et al., 2025). Thus, spiritual well-being is an important dimension in managing long-term illnesses.

Integrating reliable and responsive spiritual care may enhance patient satisfaction by fostering a healing environment inclusive of spiritual well-being. Studies reveal spiritual care interventions can reduce anxiety, depression, and stress, while improving hope and life satisfaction (Azami-Aghdash et al., 2025). Therefore, attention to these dimensions can improve the holistic healthcare experience.

Patient satisfaction is a critical indicator of healthcare quality, influencing treatment adherence and health outcomes. Dimensions of service quality, particularly reliability and responsiveness, are essential in shaping patients' perception of care quality (Dos Santos et al., 2024). Reliability ensures patients receive consistent and dependable care, while responsiveness reflects the promptness and attentiveness of healthcare providers. In spiritual care, these dimensions gain further importance as the needs addressed are often deeply

Aris Fitriyani, Budi Aji, and Novan Ardy Wiyani, Supadi, "Enhancing Patient Satisfaction through Spiritual Care: The Role of Reliability and Responsiveness in Healthcare Services," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 5, pp. 310-314, 2025.

personal and sensitive. Effective spiritual care relies on healthcare professionals' ability to reliably meet spiritual needs and respond empathically to patients' concerns and preferences (Fadlilah, 2024). This enhances trust and contributes to satisfaction with the overall healthcare experience.

Several studies have documented positive impacts of spiritual care in chronic illness contexts, including hemodialysis, on psychological outcomes such as reduced anxiety and improved hope and quality of life (Azami-Aghdash et al., 2025; Yangöz, 2025). However, the specific roles of reliability and responsiveness within spiritual care services remain underexplored. Understanding how these service quality dimensions affect patient satisfaction can guide improvements in spiritual care delivery and healthcare policy, particularly in specialized units like hemodialysis. This is crucial for facilities aiming to provide comprehensive, patient-centered care.

Furthermore, cultural and regional factors may influence the perception and impact of spiritual care. Investigating these aspects in the Indonesian healthcare context, specifically at dr. Goeteng Tarunadibrata Purbalingga Regional General Hospital, provides insight into effective localized care strategies. Despite the recognized benefits, the specific influence of reliability and responsiveness within spiritual care on patient satisfaction remains underexplored. Understanding this relationship is vital for informing service quality improvements and policy formulation in healthcare organizations.

II. PURPOSE

This study aims to measure the effect of reliability of spiritual care services on patient satisfaction in the hemodialysis unit at dr. Goeteng Tarunadibrata Purbalingga Regional General Hospital. It also analyzes the impact of healthcare providers' responsiveness in spiritual care on patient satisfaction within the same unit. The study assesses the simultaneous contribution of reliability and responsiveness along with other dimensions such as tangible, assurance, and empathy in enhancing patient satisfaction. Furthermore, it compares patient satisfaction before and after spiritual care interventions in the hemodialysis unit. Based on empirical findings, this research aims to provide evidence-based recommendations for improving the quality of responsive and reliable spiritual care services to enhance patient satisfaction in a regional hospital setting with a holistic and locally sensitive approach.

III. METHOD

This study employs a quantitative approach with a small-scale experimental design involving intervention and control groups. The sample comprises 60 hemodialysis patients at dr. Goeteng Tarunadibrata Purbalingga Regional General Hospital, equally divided into two groups of 30 respondents each. Purposive sampling was conducted based on inclusion criteria of patients undergoing hemodialysis and willing to participate.

Data analysis consisted of univariate analysis to describe respondent characteristics and frequency distribution of patient satisfaction before and after intervention. Multivariate analysis employed multiple linear regression to examine the simultaneous effects of reliability, responsiveness, tangible, assurance, and empathy variables on patient satisfaction. Statistical tests included the F-test for overall model significance, t-tests for individual variable significance, and coefficient of determination (R^2) to assess the model's explanatory power.

Instruments used were the Spiritual Needs Questionnaire (SpNQ) and modified SERVQUAL approach questionnaire. Instrument validity was tested via correlation coefficients all exceeding 0.212, indicating validity of all questionnaire items. Reliability was tested using Cronbach's alpha, with calculated r-values above 0.603, confirming the instrument's reliability for data collection purposes.

IV. RESULT

The research results obtained regarding the description of characteristics, differences in satisfaction, and dimensions of patient satisfaction with service satisfaction in the intervention and control groups, the details of which can be seen in the research results below.

TABLE I. Frequency Distribution of Respondent Characteristics in the Intervention and Control Groups

Characteristics	Group			
	Intervention		Control	
	n	%	n	%
Age				
< 21 Year	-	-	-	-
21 - 30 Year	-	-	1	3,3
31 - 40 Year	3	10,0	2	6,7
41 - 50 Year	4	13,3	5	16,7
> 50 Year	23	76,6	22	73,3
Gender				
Man	13	43,3	13	43,3
Woman	17	56,7	17	56,7
Education				
Elementary School	5	16,7	4	13,3
Middle School	5	16,7	5	16,7
High School	10	33,3	13	43,3
Diploma	3	10,0	3	10,0
Bachelor's Degree	7	23,3	5	16,7

Source: Primary data 2025

Table 1, the majority of respondents in both the intervention and control groups were over 50 years old (76.6%), predominantly female (56.7%), and had a high school education background (33.3% in the intervention group and 43.3% in the control group)

Table 2, the majority of respondents in the intervention group initially reported dissatisfaction with the service (96.7%), but following the intervention, the majority reported satisfaction, whereas in the control group, all respondents initially expressed satisfaction, yet after the intervention, most reported dissatisfaction (93.3%).

Table 3, the paired sample t-test results indicate a significant increase in the average patient satisfaction score from 62.5 before the intervention to 124.1 after the intervention, with a mean difference of 61.6 ($p = 0.000$),

Aris Fitriyani, Budi Aji, and Novan Ardy Wiyani, Supadi, "Enhancing Patient Satisfaction through Spiritual Care: The Role of Reliability and Responsiveness in Healthcare Services," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 5, pp. 310-314, 2025.

thereby statistically confirming that the intervention had a significant effect on enhancing patient satisfaction.

TABLE II. Frequency Distribution of Respondent Satisfaction in the Intervention Group

Satisfaction	Group			
	Intervention		Control	
	n	%	n	%
Pretest				
Satisfied	-	-	30	100,0
Sufficient	1	3,3	-	-
Poor	29	96,7	-	-
Post-test				
Satisfied	30	100,0	-	-
Sufficient	-	-	2	6,7
Poor	-	-	28	93,3

Source: Primary data 2025

TABLE III. Differences in Pretest and Post-test Patient Satisfaction in the intervention Group

Patient satisfaction	*Mean*	*Mean Difference*	t_{count}	*P value*
Post-test patient satisfaction	124,1	61,6	34,453	0,000
Pre-test patient satisfaction	62,5			

Source: Primary data 2025

TABLE IV. Differences in Pretest and Post-test Patient Satisfaction in the Control Group

Patient satisfaction	***Mean***	***Mean Difference***	t_{count}	***P value***
Post-test patient satisfaction	60,9	0,3	0,184	0,855
Pre-test patient satisfaction	60,6			

Source: Primary data 2025

Table 4, the paired sample t-test results indicate no significant difference in the average patient satisfaction scores before (60.6) and after the intervention (60.9) in the control group, with a minimal difference of 0.3 and a significance value of 0.855 ($p > 0.05$), thus concluding that the intervention did not have a statistically significant effect on patient satisfaction in the control group

TABLE V. Difference in Spiritual Care between the Intervention and Control Groups

Spiritual Care	**Mean**	**Mean Difference**	t_{count}	**P value**
Spiritual Care Intervention	58,8	0,4	0,541	0,580
Spiritual Care Control	58,4			

Source: Primary data 2025

Table 5, the results of the independent sample t-test show no significant difference in the average spiritual care scores between the intervention group (58.8) and the control group (58.4), with a mean difference of 0.4 and a significance value of 0.580 ($p > 0.05$), thus statistically concluding that the intervention did not have a significant effect on spiritual care scores.

Table 6. Based on the results of multiple linear regression analysis, the regression equation is obtained as follows: $Y = 0.676 + 1.082X1 + 1.939X2 + 0.820X3 + 0.281X4 + 0.312X5Y = 0.676 + 1.082X1 + 1.939X2 + 0.820X3 + 0.281X4 + 0.312X5$, with an R^2 value of 0.988 and a calculated F of 402.597, which indicates that the model is very statistically significant; positive coefficients on the variables tangible (X1), reliability (X2), responsiveness (X3), assurance (X4), and empathy (X5) indicate that a one-unit increase in each of these variables will increase service satisfaction by 1.082; 1.939; 0.820; 0.281; and 0.312 units, assuming other variables are constant at a 95% confidence level, confirms that the five dimensions have a significant positive influence on satisfaction with spiritual care services

TABLE VI. Regression Coefficient of the Influence of Patient Satisfaction Dimensions on Service Satisfaction in the Intervention Group

Variable	**Coefficient**	t_{count}	***Sig***
Constant	0,676		
Tangibles	1,082	7,174	0,000
Reliability	1,939	7,416	0,000
Responsiveness	0,820	3,011	0,006
Assurance	0,281	2,387	0,025
Empathy	0,312	2,602	0,016

$F_{count} = 402,597$
$R^2 = 0,988$
Source: Primary data 2025

The coefficient of determination (R^2) value of 0.988 indicates that the variables tangible, reliability, responsiveness, assurance, and empathy collectively explain 98.8% of the variation in service satisfaction, while the remaining 1.2% is influenced by other factors outside the research model, which indicates that the regression model is very good at predicting patient service satisfaction

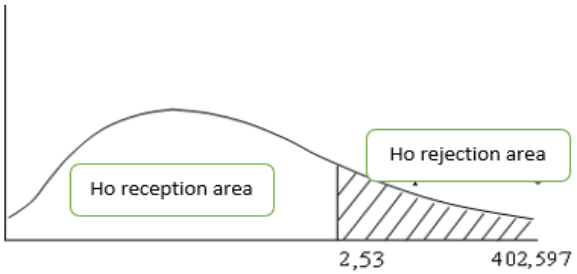

Figure 1. F-Test Curve for Intervention Group
Source: Primary data 2025

The F-test with a calculated F-value of 402.597, which is greater than the F-table value of 2.53 at the 95% confidence level ($\alpha = 0.05$), indicates that the variables tangible, reliability, responsiveness, assurance, and empathy simultaneously have a significant influence on service satisfaction

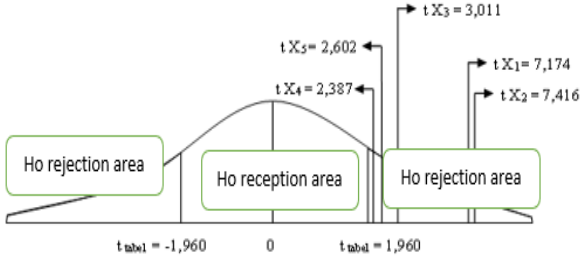

Figure 2. Intervention Group t-Test Curve
Source: Primary data 2025

Aris Fitriyani, Budi Aji, and Novan Ardy Wiyani, Supadi, "Enhancing Patient Satisfaction through Spiritual Care: The Role of Reliability and Responsiveness in Healthcare Services," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 5, pp. 310-314, 2025.

Based on Figure 2, the partial t-test results show that the variables tangible (t = 7.174), reliability (t = 7.416), responsiveness (t = 3.011), assurance (t = 2.387), and empathy (t = 2.602) have a calculated t-value greater than the t-table of 1.960 at a 95% significance level. Therefore, it can be concluded that these five variables partially have a positive and significant effect on service satisfaction.

TABLE VII. Elasticity Test Results

Variable	Beta
Tangibles	0,423
Reliability	0,553
Responsiveness	0,212
Assurance	0,089
Empathy	0,073

Source: Primary data 2025

Table 7. Based on the results of the beta value calculation, the responsiveness variable has the strongest and most dominant influence on service satisfaction compared to other variables, so that statistically the responsiveness variable can be considered as the main factor influencing customer satisfaction

TABLE VIII. Multiple Linear Regression Analysis of the Effect of Patient Satisfaction Dimensions on Service Satisfaction in the Control Group

Variable	Coefficient	t_{count}	*Sig*
Constant	28,096		
Tangibles	1,052	1,598	0,123
Reliability	0,056	0,116	0,909
Responsiveness	0,024	0,026	0,979
Assurance	0,019	0,023	0,982
Empathy	0,030	0,027	0,979
F_{count} = 0,699			
R^2 = 0,127			

Source: Primary data 2025

Table 8 Based on the results of multiple linear regression analysis, the equation obtained is Y = 28.096 + 1.052X1 + 0.056X2 + 0.024X3 + 0.019X4 + 0.030X5Y = 28.096 + 1.052X1 + 0.056X2 + 0.024X3 + 0.019X4 + 0.030X5 with a t coefficient indicating that the tangible variable has a positive relationship with service satisfaction where each increase of one unit will increase service satisfaction by 1.052 units, while the reliability, responsiveness, assurance, and empathy variables are also positively related but not significant; the R^2 value of 0.127 and the calculated F value of 0.699 indicate that this model is only able to explain 12.7% of the variation in service satisfaction, so that other variables outside the model also play a role in determining service satisfaction.

The coefficient of determination (R^2) value of 0.127 indicates that the variables tangible, reliability, responsiveness, assurance, and empathy together are only able to explain 12.7% of the variation in service satisfaction, while the other 87.3% of the variation is influenced by factors outside this model, thus indicating that this regression model has limitations in predicting patient service satisfaction.

V. Discussion

This study investigated the effect of spiritual care on patient satisfaction, emphasizing the dimensions of reliability and responsiveness in healthcare services among elderly patients predominantly aged above 50 years, with a slight female majority and educational background mainly at the high school level. The findings affirmed that spiritual care interventions significantly improved patient satisfaction, as evidenced by a marked difference in pretest and post-test satisfaction scores in the intervention group, contrasting with the control group where no significant difference was observed.

The multiple linear regression analysis identified that among the SERVQUAL dimensions, reliability and responsiveness had significant positive influences on patient satisfaction, with reliability exhibiting the strongest effect (β=0.553), followed by responsiveness (β=0.212). These findings align with extant literature emphasizing reliability—the ability of healthcare providers to deliver promised services accurately and dependably—as a cornerstone for patient trust and satisfaction (Inaray et al., 2024; Syahputri, 2024). Responsiveness, defined as promptness and willingness to help patients, also significantly elevated satisfaction levels, corroborating studies linking timely, empathetic communication with improved patient outcomes and emotional comfort (Hidayat, 2025; Dos Santos et al., 2024).

The study by Al-Neyadi, Abdallah, and Malik (2018) found that overall patient satisfaction with healthcare services in UAE hospitals was good. Patients were most satisfied with the responsiveness dimension, which reflects the willingness of staff to help patients and provide prompt service, followed by empathy and reliability. Empathy involved personalized attention and care from nurses. However, patients were less satisfied with the assurance dimension, related to staff knowledge and ability to perform services accurately, as well as communication effectiveness. The study highlights the importance of personal attention and communication by healthcare providers in enhancing overall patient satisfaction

The demographic composition, primarily older adults, suggests a particular relevance of spiritual care tailored to address existential and psychosocial needs, which reinforces holistic care frameworks highlighted in recent oncology and chronic care research (Meneses-La-Riva et al., 2025). Spiritual interventions potentially mitigate anxiety and enhance psychological comfort, thereby indirectly enhancing perceptions of service reliability and responsiveness.

Furthermore, the non-significant difference in spiritual care scores between intervention and control groups indicates that spiritual care must be integrated systematically into service processes to substantially impact patient satisfaction measurably. Given these insights, healthcare organizations should prioritize training practitioners in spiritual competence alongside reinforcing structural capabilities to enhance reliability and responsiveness, aiming to foster holistic patient-centered care.

VI. Conclusion

In conclusion, this study substantiates the critical role of both reliability and responsiveness in healthcare settings as mechanisms through which spiritual care positively influences patient satisfaction. These findings advocate for healthcare

Aris Fitriyani, Budi Aji, and Novan Ardy Wiyani, Supadi, "Enhancing Patient Satisfaction through Spiritual Care: The Role of Reliability and Responsiveness in Healthcare Services," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 5, pp. 310-314, 2025.

policies that embed spiritual care within quality service frameworks to ensure comprehensive, empathetic, and timely care delivery.

REFERENCES

[1] Al-Neyadi, H. S., Abdallah, S., & Malik, M. (2018). Measuring patient's satisfaction of healthcare services in the UAE hospitals: Using SERVQUAL. *International Journal of Healthcare Management, 11*(2), 96–105. https://doi.org/10.1080/20479700.2016.1266804

[2] Azami-Aghdash, S., Nouri, M., Rahimi, F., Amuzadeh-Araei, S., Abass, K. S., Aghababaeian, H., Koupaei, S. Y., Karami, S., & Rostampour, M. (2025). Effectiveness of spiritual health-based interventions in improving health indicators of patients in Iran: a systematic review and meta-analysis. *BMC Psychology, 13*, 938. https://doi.org/10.1186/s40359-025-03275-x

[3] Dos Santos, F.C., et al. (2024). The impact of spiritual care delivered by nurses on patients' psychological comfort: A longitudinal study. *Journal of Advanced Nursing*, 80(7), 2215-2225. https://doi.org/10.1111/jan.15215

[4] Fadlilah, N., Muhith, A., & Setiyowati, E. (2024). Nurses' spiritual competence towards spiritual care and patient satisfaction: A systematic review. *Journal of Applied Nursing and Health, 6*(2), 542–556.

[5] Hidayat, D. H., Mimanda, Y., & Maikel, M. P. (2025). The impact of responsiveness on patient satisfaction: Ensuring healthy lives and well-being through Sustainable Development Goal 3. *The Journal of Indonesia Sustainable Development Planning*, 6(1), 21–30. https://journal.pusbindiklatren.bappenas.go.id/

[6] Inaray, P.A. C., Soewignyo, F., Sumanti, E. R., & Mandagi, D. W. (2024). Exploring the nexus between service quality, patient satisfaction, and recommendation intentions in faith-based hospital settings. *Ekuitas: Jurnal Ekonomi dan Keuangan*, 8(3), 398-417 https://doi.org/10.24034/j25485024.y2024.v8.i3.6527

[7] Khouzani, P.K., et al. (2025). Identifying the key components of providing spiritual care in healthcare: Review and implications. *Journal of Clinical Nursing*, 34(4), 567-579. https://doi.org/10.1111/jocn.16234

[8] Meneses-La-Riva, M. E., Fernández-Bedoya, V. H., Suyo-Vega, J. A., Ocupa-Cabrera, H. G., & Ocupa-Meneses, G. D. (2025). Spiritual care and spiritual perspective: Assessing oncology patients' perspectives and their implications for healthcare management. *Healthcare, 13*, 2-18. https://doi.org/10.3390/healthcare13131554

[9] Reig-Ferrer, A., Arenas, M. D., Ferrer-Cascales, R., Fernández-Pascual, M. D., Albaladejo-Blázquez, N., Gil, M. T., & de la Fuente, V. (2012). Evaluación del bienestar espiritual en pacientes en hemodiálisis. *Nefrología, 32*(6), 731–742. https://doi.org/10.3265/Nefrologia.pre2012.Apr.11384

[10] Sierra, P.B., Pérez-Jiménez, J. M., Espinoza Quezada, D. P., Lucchetti, G., & De-Diego-Cordero, R. (2025). Association between religious/spiritual coping and quality of life among hemodialysis patients in Ecuador. *Frontiers in Public Health, 13*, 1–9. https://doi.org/10.3389/fpubh.2025.1510329

[11] Syahputri, I. N., Wienaldi, W., & Lestari, S. (2024). The effect of health service quality dimensions on outpatient satisfaction at plenary accredited hospitals. *International Journal of Health and Pharmaceutical, 4*(1), 101–113. https://ijhp.net/index.php/IJHP/article/view/10

[12] Yangöz, Ş. T., Kavradim, S. T., & Özer, Z. (2025). Spiritual interventions on physical and psychological outcomes in adults receiving haemodialysis: A systematic review and meta-analysis of randomized controlled studies. *Applied Nursing Research, 83*, 151918. https://doi.org/10.1016/j.apnr.2025.151918