

The Analysis of The Influence of Ethical Communication and Patient Trust on The Decision to Reuse Dialysis Services

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Abstract.

Chronic kidney disease (CKD) is a global health problem with increasing prevalence, making haemodialysis a critical service in hospitals. Patients' decisions to reuse dialysis services are influenced not only by medical factors, but also by ethical communication between healthcare professionals and patient trust. This study aims to analyse the influence of ethical communication and patient trust on the decision to reuse dialysis services at Dr. Dradjat Prawiranegara Regional General Hospital, Serang, Indonesia. The study used a quantitative approach with a survey of 133 active haemodialysis patients. Instrument validity was tested using Confirmatory Factor Analysis (CFA) with a loading factor >0.5 and Cronbach's Alpha reliability >0.7. Data analysis was performed using Structural Equation Modelling (SEM) using AMOS. The results of the study proved that ethical communication had a positive and significant effect on patient trust (CR = 7.669; p = 0.000), patient trust had a significant effect on the decision to reuse dialysis services (CR = 6.388; p = 0.000), and patient trust was proven to be a mediating variable that strengthened the influence of ethical communication on patient decisions (indirect effect = 0.476). This study emphasized the importance of integrating ethical communication and strengthening patient trust as a managerial strategy to improve service quality and support the sustainability of dialysis services.

Keywords: Ethical communication; hemodialysis; hospital service quality; patient trust and reuse decisions.

I. INTRODUCTION

Chronic kidney disease (CKD) is a major global health problem, showing an increasing trend year after year. According to the Global Burden of Disease (2023), the prevalence of CKD has increased by more than 30% in the last two decades, making it the 10th leading cause of death worldwide [1]. In Indonesia, based on data from the Indonesian Renal Registry (IRR) in 2023, the number of active hemodialysis patients reached more than 170,000 people with an increasing trend of new patients every year [2]. A patient's decision to reuse dialysis services is influenced not only by medical factors, but also by psychosocial and ethical factors in the interaction between the patient and healthcare provider. According to Golsorkhi et al. (2025), effective communication between doctors and patients in the management of advanced kidney disease plays a significant role in establishing a therapeutic relationship, improving patient understanding, and supporting shared decision-making [3].

The importance of ethical communication is also emphasized in national regulations. Minister of Health Regulation No. 42 of 2018 concerning the Code of Ethics and Hospital Law stipulates that healthcare workers are required to uphold ethical principles in providing services, including honesty, openness, respect for patient rights, and maintaining professional dignity. Dr. Dradjat Prawiranegara Regional General Hospital in Serang is a regional referral hospital with over 200 active haemodialysis patients each month. Despite a repeat patient visit rate of 85–90%, the hospital still faces challenges in maintaining patient trust, with complaints related to a lack of clear medical explanations, delays in information, and a lack of empathy in clinical interactions[4].Based on this background, this study aims to: (1) analyze the influence of ethical communication on patient trust; (2) analyze the influence of patient trust on the decision to reuse dialysis services; and (3) analyze the role of patient trust as a mediating variable in the relationship between ethical communication and the decision to reuse dialysis services at Dr. Dradjat Prawiranegara Regional Hospital, Serang, Indonesia.

II. METHODS

This study used a quantitative approach with a cross-sectional survey design. The study population was all active patients undergoing routine haemodialysis therapy in the haemodialysis unit of Dr. Dradjat

Prawiranegara Regional Hospital, Serang Indonesia. The study sample consisted of 133 respondents selected using a purposive sampling technique, considering predetermined inclusion and exclusion criteria.[5]. The research instrument consisted of three validated questionnaires: (1) Doctor Patient Communication Questionnaire (D-PCQ) to measure ethical communication[6]; (2) Evaluation of the Trust in Physician Scale (TIPS) to measure patient trust [7]; (3) revisit intention questionnaire to measure the decision to reuse dialysis services [8].Instrument validity was tested using Confirmatory Factor Analysis (CFA), with all indicators having a loading factor >0.5 . Reliability was assessed using Cronbach's Alpha with a value >0.7 . Data analysis was performed using Structural Equation Modeling (SEM) with AMOS software. Model feasibility was assessed based on the Goodness of Fit index, including RMSEA <0.08 ; GFI and AGFI >0.90 ; and CFI and TLI >0.95 . Hypothesis testing was conducted to analyze the direct and indirect influences between the research variables [9].

III. RESULT AND DISCUSSION

1. Respondent Characteristics

This study involved 133 respondents who were active hemodialysis patients at Dr. Dradjat Prawiranegara Regional Hospital, Serang Indonesia. Complete respondent characteristics are presented in Table 1, below.

Table 1. Respondent Characteristic (n = 133)

Characteristics	Frequency (People)	Percentage (%)
Gender		
Male	77	57,9
Female	56	42,1
Total	133	100,0
Age		
< 30 Tahun	16	12,0
30 – 45 Tahun	51	38,3
46 – 60 Tahun	45	33,8
> 60 Tahun	21	15,8
Total	133	100,0
Education		
Elementary Education	53	39,8
Middle Education	49	36,8
Higher education	31	23,3
Total	133	100,0
Length of Dialysis		
< 1 Year	37	27,8
1 – 3 Years	61	45,9
> 3 Years	35	26,3
Total	133	100,0
Marital Status		
Married	96	72,2
Unmarried	37	27,8
Total	133	100,0

Sources: Process by Researcher, 2025

Based on Table 1, the majority of respondents were male (57.9%). Based on age group, the largest proportion was in the 30–45 age group (38.3%), followed by the 46–60 age group (33.8%). The majority of respondents had a primary education (39.8%), and most had been on dialysis for 1–3 years (45.9%). In terms of marital status, the majority of respondents were married (72.2%).

2. Validity and Reliability Test

The results of the validity test using Confirmatory Factor Analysis (CFA) showed that all indicators in the three research variables had loading factor values >0.5 , thus being declared valid. The loading factor value for the Ethical Communication variable ranged from 0.760 to 0.926, with a Construct Reliability (CR) of 0.975. The loading factor value for the Decision to Reuse variable ranged from 0.772 to 0.864, with a CR of 0.968. The reliability test results showed Cronbach's Alpha values >0.7 for all variables, indicating that the research instrument is reliable and consistent.[10].

3. SEM Model Goodness of Fit Test

The results of the SEM model goodness-of-fit test are presented in Table 2. Although several indices (Chi-square, Significant Probability, GFI, AGFI) did not meet the cut-off value, the RMSEA, CMIN/DF, TLI, and CFI results indicated adequate fit. This is acceptable in studies with many indicators, as stated by Hair et al. (2019) that models with complex samples cannot always meet all indices simultaneously[11].

Table 2. Results of the SEM Model Goodness of Fit Test

Goodness of Fit Index	Cut-off Value	Research Model	Description
Chi-square	$\leq 927,255$ (df=858)	470,048	Not Fit
Significant Probability	$\geq 0,05$	0,001	Not Fit
RMSEA	$\leq 0,08$	0,043	Fit
GFI	$\geq 0,90$	0,824	Not Fit
AGFI	$\geq 0,90$	0,783	Not Fit
CMIN/DF	$\leq 2,0$	1,247	Fit
TLI	$\geq 0,90$	0,973	Fit
CFI	$\geq 0,90$	0,977	Fit

Sources: Output AMOS, 2025

A. Ethical Communication Variable

Based on the results of the descriptive analysis, the ethical communication variable obtained an overall average score of 3.20 and was categorized as good. Physicians were assessed as being able to listen carefully to patients, encourage patients to express their concerns, and demonstrate a calming and respectful attitude. Conceptually, ethical communication is the process of conveying information between medical personnel and patients based on the principles of honesty, empathy, respect for patient dignity, and transparency[12]. These findings align with research by Street which states that doctors' ability to actively listen and demonstrate empathy is a key factor in improving the quality of the doctor-patient relationship in patients with chronic diseases[13]. The lowest average scores were found for the ease of understanding of doctors' explanations and the completeness of medical information. This condition may be influenced using overly technical medical terms, limited consultation time, and differences in patients' health literacy levels [14].

4. Hypothesis Testing Results

Table 3. Hypothesis Testing Results

Hypothesis	Estimate	S.E.	C.R.	P	Result
H1: Ethical Communication \rightarrow Patient Trust	0,555	0,072	7,669	0,000	Significant
H2: Ethical Communication \rightarrow Decision to Reuse Services	0,163	0,081	2,005	0,045	Significant
H3: Patient Trust \rightarrow Decision to Reuse Services	0,847	0,133	6,388	0,000	Significant

Hypothesis	Direct	Indirect	Result
H4: Ethical Communication → Patient Trust → Decision to Reuse Services (Re-Visit Hospital)	0,166	0,476	Significant

Souces: Output AMOS, 2025

B. Patient Trust Variable

The patient trust variable received an overall average score of 3.14 and was categorized as good. The aspects of doctor honesty and competence received the highest ratings, indicating that patients trust that doctors convey medical information honestly and possess adequate professional skills[15]. However, several indicators received lower scores, particularly those related to the accuracy of medical assessments. According to Mechanic and Meyer (2020), patient trust is dynamic and influenced by repeated clinical experiences, particularly in chronic illnesses[16].

C. Dialysis Service Reuse Variable

The dialysis service reuse variable obtained an average score of 3.37 and is categorized as good. The item with the highest score relates to the patient's willingness to recommend the hospital to others. According to Kotler and Keller, willingness to recommend services is a strong indicator of customer loyalty[17]. Patients' intention to reuse services in the future showed a relatively lower score, indicating that loyalty is still rational and influenced by situational considerations[18].

D. The Effect of Ethical Communication on Patient Trust

The results of the hypothesis testing indicate that ethical communication has a positive and significant effect on patient trust (CR = 7.669; $p = 0.000 < 0.05$), thus accepting the first hypothesis. The most dominant indicator is the clarity and openness of medical information, with a loading factor of 0.926. This finding aligns with research by Lee and Lin, which showed that physician ethical communication has a direct and significant influence on patient trust, particularly through the dimensions of information clarity and empathy[19]. From a medical ethics perspective, the principles of autonomy, beneficence, non-maleficence, and justice Beauchamp & Childress, 2021 place ethical communication as the primary means of implementing clinical ethics[12]. Research by Birkhimer, confirms that honest and transparent communication is a key determinant of trust in modern healthcare [20]. Therefore, the better the quality of ethical communication demonstrated by healthcare professionals, the higher the patient trust.

E. The Influence of Patient Trust on Reuse Decisions

The SEM analysis results demonstrated that patient trust had a positive and significant influence on the decision to reuse dialysis services (CR = 6.388; $p = 0.000 < 0.05$). The Construct Reliability value of 0.968 indicates very high internal consistency. This finding aligns with the commitment-trust theory, which states that trust is a primary prerequisite for forming commitment and repeat behavior in long-term relationships[21]. Al-Doghaither's research on dialysis patients concluded that patient trust in clinical competence was the most determining factor in the decision to reuse[22]. Around 20% of respondents did not show a strong intention to revisit, indicating the need to strengthen procedural transparency and institutional accountability so that trust is not merely pragmatic[23].

F. The Role of Patient Trust as a Mediating Variable

The results of the indirect effect test indicate that patient trust acts as a significant mediating variable (indirect effect = 0.476; direct effect = 0.166; $p < 0.05$). The larger indirect effect compared to the direct effect indicates that most of the ethical communication's influence on reuse decisions operates through the mechanism of trust formation[24]. From the perspective of Rosenstock's Health Belief Model, trust acts as a psychological mediator that strengthens the perception of service benefits[25]. From Deci & Ryan's Self-Determination Theory, trust strengthens the sense of connectedness between patients and medical personnel, which encourages sustainable behaviour [26]. Birkhäuer's meta-analysis also confirmed that patient trust consistently acts as a mediator between the quality of healthcare provider interactions and various patient behavioural outcomes[20]. Overall, these findings emphasize that investing in healthcare providers' ethical communication competencies is a strategy that not only improves the quality of the therapeutic relationship but also ensures the sustainability of dialysis services.

IV. CONCLUSION

Based on the results of research on 133 active haemodialysis patients at Dr. Dradjat Prawiranegara Regional General Hospital, Serang, Indonesia the following conclusions can be drawn: (1) Ethical communication of healthcare workers is in the good category, characterized by honesty, empathy, openness of information, and respect for patient dignity; (2) Patient trust is at a good level, especially regarding the professional competence and integrity of medical personnel; (3) The decision to reuse dialysis services is in the good category with rational loyalty influenced by situational factors; (4) Ethical communication has a positive and significant effect on patient trust (CR = 7.669; $p = 0.000$); (5) Ethical communication has a significant effect on the decision to reuse services (CR = 2.005; $p = 0.045$); (6) Patient trust has a positive and significant effect on the decision to reuse services (CR = 6.388; $p = 0.000$); (7) Patient trust has been shown to act as a mediating variable in the relationship between ethical communication and the decision to reuse services (indirect effect = 0.476). Hospitals are advised to: conduct systematic active listening training for all healthcare workers; establish monthly internal discussion forums as a medium for professional reflection; carry out regular monitoring and internal audits of communication quality and patient trust; increase transparency of medical procedures with easy-to-understand language; maintain the confidentiality of medical data; and align service policies with Minister of Health Regulation No. 42 of 2018 so that ethical and sustainable haemodialysis services can be realized.

V. ACKNOWLEDGMENTS

The management of Dr. Dradjat Prawiranegara Serang Regional General Hospital recommends optimizing the service process in the hemodialysis unit through regular evaluations of the quality of ethical communication among healthcare workers, adjusting the number of medical staff during peak service hours, and implementing a structured, data-driven patient trust monitoring system. Furthermore, ethical communication training for all healthcare workers in the Hemodialysis Unit needs to be improved and implemented regularly to ensure the delivery of medical information, explanations of dialysis procedures, and clinical interactions are consistent, empathetic, and patient safety-oriented. Improving waiting room facilities, strengthening patient data confidentiality, and establishing an internal reflection forum for healthcare workers should also be prioritized to minimize barriers to service delivery. For future researchers, it is recommended to include additional variables that could potentially influence patient trust and the decision to reuse dialysis services, such as medical staff workload, the quality of the hospital's physical facilities, patient family support, or more in-depth patient sociodemographic characteristics. A longitudinal research design could also be used to examine changes in patient trust levels and the decision to reuse services over time following a quality improvement intervention, thereby providing a more comprehensive understanding of the effectiveness of hemodialysis service quality improvement strategies.

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