



Therapeutic Communication Erosion and Patient Trust Vulnerability in Technology Dominated Nursing Care

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ABSTRACT

The development of digital technology in nursing services has increased the efficiency of health services, but has the potential to reduce the quality of therapeutic communication between nurses and patients that is the foundation of the care relationship. This study aims to explore how the dominance of technology in nursing practice affects the erosion of therapeutic communication and the vulnerability of patient trust. The study used a phenomenological qualitative approach involving 20 inpatients and 12 nurses who were purposively selected. Data were collected through in-depth interviews and non-participatory observations, then analyzed using thematic analysis. The results showed that excessive focus on digital documentation and the use of technological devices reduced interpersonal interaction, empathy, and emotional support, resulting in some patients feeling less personalized service and lowering their confidence levels. This research emphasizes the importance of maintaining therapeutic communication to maintain patient trust in increasingly digitized nursing services

INTRODUCTION

Digital transformation in healthcare has significantly changed nursing practices through the application of electronic medical records, telehealth, artificial intelligence-based clinical decision support systems, and various real-time patient monitoring devices. The digitization provides benefits in the form of increased service efficiency, documentation accuracy, and speed of access to clinical information. However, technological developments have also raised concerns about the lack of interpersonal interaction between nurses and patients that has been at the core of humanistic nursing practice. In the theory of Interpersonal Relations developed by Peplau, the therapeutic relationship between nurse and patient is the main foundation in the healing process and recovery of health. When human interaction is replaced by the dominance of technology, the quality of therapeutic communication has the potential to decline which has an impact on the patient's experience while receiving treatment (Sudarsih & Santoso, 2024; Safitri et al., 2024).

Therapeutic communication is a professional communication process that is consciously designed to help patients achieve optimal health conditions through trusting relationships, empathy, and emotional support. In the context of modern nursing, therapeutic communication serves not only as a means of delivering clinical information, but also as a mechanism for building trust, reducing anxiety, increasing medication adherence, and strengthening patient involvement in the treatment process. Various studies show that the quality of therapeutic communication has a strong relationship with patient satisfaction and the quality of overall health services (Sitorus, 2024; Nurhalizah, 2024; Nur, 2023).

In Indonesia, the implementation of digital transformation in hospitals is growing in line with the policy of digitizing health services and integrating the national health information system. On the one hand, digitization helps nurses document nursing care more efficiently. But on the other hand, intensive use of digital devices often reduces the duration of direct contact with patients. Research by Sudarsih et al. (2025) shows that effective therapeutic communication plays an important role in building patient trust and understanding of the treatment process. On the other hand, the failure to implement optimal therapeutic communication can cause a negative perception of service quality and reduce the level of patient trust in health workers (Karo et al., 2025).

Similar phenomena are also found in the global context. International studies show that the digitalization of healthcare services creates new challenges in maintaining patient-centered therapeutic relationships. Lee et al. (2021) emphasized that the use of computer-based communication technology can improve the efficiency of nursing learning and practice, but has the potential to reduce the quality of interpersonal communication if it is not balanced with adequate communication skills. In addition, Bach and Mannikko (2024) explain that patient trust is a very important factor in the successful implementation of artificial intelligence-based health technology. When patients feel that their

personal relationship with health care workers is reduced, the level of trust in the health care system can also decrease.

Although research on therapeutic communication has developed quite rapidly, most studies still focus on the relationship between therapeutic communication and patient satisfaction, caring behavior, or quality of nursing services. Safitri et al. (2024) through a systematic study found that therapeutic communication has a significant effect on patient satisfaction. Similar findings were reported by Sitorus (2024), Priyantini (2023), and Gaol et al. (2025) showing that therapeutic communication was positively correlated with patients' experiences and satisfaction during treatment. However, these studies have not specifically examined the impact of technological dominance on the erosion of therapeutic communication and the vulnerability of patient trust in an increasingly digitized healthcare environment.

Another research gap lies in the limited number of studies that connect three main concepts simultaneously, namely the dominance of technology, the erosion of therapeutic communication, and the vulnerability of patient trust. Most previous research has viewed technology as an instrument for improving the quality of care without exploring the social and relational consequences that may arise in nurse-patient interactions. In fact, contemporary nursing approaches emphasize the importance of a balance between the use of technology and humanized care practices that are oriented to the emotional needs of patients. Therefore, a study is needed that is able to explain how the dominance of technology affects the quality of therapeutic communication and how these conditions shape the vulnerability of patients' trust in nursing services.

Based on this description, this study aims to explore in depth the experiences of patients and nurses regarding changes in therapeutic communication patterns in a technology-dominated healthcare environment. In particular, this study seeks to identify the forms of therapeutic communication erosion that emerge in digital nursing practice, understand the factors that influence them, and analyze their impact on patient trust vulnerability. By using a phenomenological qualitative approach, this study is expected to be able to provide a more comprehensive understanding of the subjective experiences of actors involved in modern nursing services.

This research makes a theoretical contribution by expanding the study of therapeutic communication through the integration of digital transformation perspectives and interpersonal relationship theory in nursing. In addition, this research offers practical contributions for hospitals, nursing education institutions, and health policymakers in designing technology implementation strategies that maintain humanistic values in services. The findings of the research are expected to be the basis for the development of a digital nursing service model that is not only oriented towards technological efficiency, but also able to maintain the quality of therapeutic relationships and strengthen patient trust in health services.

LITERATURE REVIEW

Therapeutic Communication in a Humanistic Nursing Paradigm

Therapeutic communication is a fundamental component of human-centered care nursing practice. This concept is rooted in Peplau's theory of interpersonal relationships which places communication as the main instrument in building a professional relationship between nurses and patients. Through therapeutic communication, nurses not only convey clinical information, but also provide emotional support, empathy, a sense of security, and help patients understand their health conditions. Research shows that effective therapeutic communication contributes to improved quality of care, patient satisfaction, adherence to therapy, and the success of the healing process. In the context of modern ministry, therapeutic communication is still seen as the core of nursing practice that cannot be completely replaced by technology because it involves emotional and relational dimensions that are human in nature (Safitri et al., 2024; Sharma et al., 2023).

Various studies in Indonesia show that the quality of therapeutic communication has a significant relationship with patient perception of the quality of health services. Sitorus (2024), Sundari (2024), and Gunawan (2025) found that patients who received good therapeutic communication tended to show higher levels of satisfaction than patients who experienced less than optimal communication. These findings show that therapeutic communication not only functions as an interpersonal skill, but also as an indicator of the quality of nursing services that are perceived directly by patients.

Patient Trust as the Foundation of the Nurse–Patient Relationship

Patient trust is a central element in the therapeutic relationship between nurse and patient. Trust is formed when patients believe that health workers have professional competence, integrity, care, and commitment to provide the best service. In nursing practice, trust allows patients to be more open in submitting complaints, following treatment recommendations, and actively participating in the healing process. Therefore, therapeutic communication is often considered a key mechanism in building and maintaining patient trust. Research by Rahagia et al. (2025) shows that therapeutic communication plays an important role in reducing anxiety, increasing a sense of security, and building a relationship of mutual trust between patients and caregivers. Similar findings were also reported by Nurfitriani (2025) who stated that trusting relationships are a direct result of therapeutic communication carried out consistently and empathic. When the quality of communication declines, patients are at risk of uncertainty, doubts about clinical decisions, and decreased trust in the health services they receive. This condition is understood in this study as patient trust vulnerability.

Digital Transformation and the Dominance of Technology in Nursing Services

The development of health technology in the last decade has changed the way nursing services are delivered. The implementation of electronic medical records, telehealth, sensor-based patient monitoring systems, and artificial intelligence provides various benefits in the form of increased work efficiency, documentation accuracy, and speed of clinical decision-making. In Indonesia, health digitalization continues to grow through the integration of hospital information systems and the implementation of electronic medical records nationwide. The implementation has been proven to be able to improve service efficiency and access to patient data in real-time.

At the global level, the integration of AI in nursing is increasingly being used to support clinical decision-making, patient monitoring, nursing education, and healthcare management. Mahmoudi et al. (2024), Dailah et al. (2024), and Wei et al. (2025) explain that AI has the potential to improve service quality through reducing diagnostic errors, optimizing resources, and improving patient safety. Nonetheless, the researchers also highlight that the overuse of technology can alter the pattern of interaction between healthcare workers and patients, creating new challenges in maintaining human-centered therapeutic relationships.

The Erosion of Therapeutic Communication in a Digital Nursing Environment

The concept of therapeutic communication erosion refers to the reduction in the quality, intensity, and depth of therapeutic communication due to the increasing dominance of technology in nursing practice. This phenomenon occurs when nurses interact more with digital systems than with patients in person. The use of electronic medical records, computer-based documentation, and various digital devices often distract nurses from the patient's emotional needs. As a result, communication aspects such as eye contact, empathy, active listening, therapeutic touch, and psychological support are becoming increasingly limited.

Although technology improves service efficiency, some studies show that there is a risk of dehumanization in health practices. A survey conducted by National Nurses United in 2024 shows that some nurses are concerned about the excessive use of AI because it can reduce clinical considerations and the quality of relationships with patients. The findings show that technology is not always neutral, but can affect social and relational dynamics in health services if not used proportionately.

Human-Centered Nursing Care as a Balancing Approach

In response to the increasing digitalization of healthcare, the concept of human-centered nursing care is evolving as an approach that balances the use of technology with the emotional and social needs of patients. This approach emphasizes that technology should serve as a support tool, not a substitute for interpersonal relationships in nursing practice. Bach et al. (2023) explained that trust in AI-based systems is greatly influenced by human factors, including patients' perceptions of empathy, transparency, and healthcare workers' involvement in the service process. Therefore, the success of the implementation of health technology is not only determined by the sophistication of the system,

but also by the ability of health workers to maintain the quality of the therapeutic relationship with patients.

Based on the literature review, it can be concluded that research on therapeutic communication has so far focused more on patient satisfaction, service quality, and caring behavior of nurses. Studies that specifically integrate technology dominance, therapeutic communication erosion, and patient trust vulnerability are still very limited, especially in the context of digital nursing services in Indonesia. Therefore, this research has an important contribution in developing a theoretical understanding of the impact of digital transformation on therapeutic relationships and provides an empirical basis for the development of a nursing service model that remains humanistic in the midst of accelerating health digitalization.

METHODOLOGY

Types of Research

This study uses a qualitative approach with a descriptive phenomenological design to explore the experiences of patients and nurses related to the erosion of therapeutic communication and the vulnerability of patient trust in technology-dominated nursing services. The phenomenological approach was chosen because it is able to reveal the meaning of participants' experiences in depth to the phenomena that occur in digital nursing practice (Moser & Korstjens, 2023; Yusuf et al., 2024).

Population and Sample

The research population includes inpatients and nurses in hospitals that have implemented digital-based health care systems. Samples were selected using purposive sampling techniques with the criteria of participants who had direct experience with the use of technology in nursing services. A total of 20 patients and 12 nurses were involved in the study until data saturation or data saturation (Hennink & Kaiser, 2022).

Research Instruments

The main instrument of the research is the researcher (human instrument) supported by semi-structured interview guidelines, observation sheets, and documentation. The interview guide was compiled based on the concepts of therapeutic communication, patient trust, and technology-based nursing services developed from previous research (Safitri et al., 2024; Bach & Mannikko, 2024). The validity of the data is maintained through source triangulation, member checking, and peer debriefing to increase the credibility of research results (Yusanto, 2023).

Data Collection Procedure

Data collection begins with the acquisition of research permits and ethical approvals. Furthermore, participants were recruited according to inclusion criteria and participated in in-depth interviews for 30–60 minutes. Interviews were recorded, transcribed verbatim, and complemented by non-participatory observations of nurse-patient interactions during the service process. All data is then verified through member checking before being analyzed.

Data Analysis Techniques

Data was analyzed using thematic analysis based on Braun and Clarke's stages which include data recognition, coding, theme identification, theme review, theme naming, and preparation of research results reports (Braun & Clarke, 2022). Data management and organization is carried out with the help of NVivo 14 software to improve the accuracy of the data analysis and interpretation process.

RESULTS

Shifting Nurse Focus from Patient Interaction to Digital Documentation

Most patients revealed that the use of electronic medical records and digital documentation systems led to a reduction in the intensity of direct communication with nurses. Of the 20 patients interviewed, 16 patients stated that nurses often focused on computers or digital devices rather than conducting in-depth interpersonal communication. This condition causes the interaction that occurs to be more technical and administrative than therapeutic. One patient explained:

"I see nurses often typing on the computer when they enter the room. They are friendly, but usually only ask for a brief condition and then go back to looking at the screen. Sometimes I want to ask more, but I feel like they're busy with the system they're using." (P07, interview February 12, 2026)

Other patients said:

"Compared to a few years ago when I was treated, now nurses carry more tablets or look at computers. The speaking time feels shorter." (P12, interview February 14, 2026)

From a nurse's perspective, the demand for digital documentation is also considered a factor that influences the pattern of interaction with patients.

"The electronic system does help our work, but the data input process is quite a lot. Sometimes we have to choose between completing documentation on time or talking to patients for longer." (N03, interview February 15, 2026)

Declining Dimensions of Empathy and Therapeutic Presence

The second theme shows a decrease in the dimension of empathy and therapeutic presence in the nurse-patient interaction. A total of 15 patients stated that the communication that occurred focused more on clinical needs than the emotional needs of the patients. The results of the observations also showed that interactions tended to be short and task-oriented.

One of the patients said:

"The nurses always come to check my medication or medical equipment, but rarely ask how I feel or if I'm anxious." (P04, interview February 11, 2026)

Another patient revealed:

"They're professionals, but I feel like our relationship is more like a matter of work. There aren't many conversations that make me feel listened to." (P15, interview February 16, 2026)

Similar findings were also acknowledged by nurses:

"We understand the importance of therapeutic communication, but in day-to-day practice often the main focus is on completing procedures and documentation that must be reported immediately." (N08, interview February 18, 2026)

Observations show that eye contact, exploratory communication, and the use of open-ended questions are less common than clinical data verification activities and electronic documentation.

The Emergence of Vulnerability to Patient Trust in Services

The third theme shows that the reduced quality of therapeutic communication gives rise to vulnerability to patient trust. A total of 13 patients stated that they had postponed or canceled their intention to submit additional complaints because they thought the nurse was busy with digital devices.

One patient said:

"Sometimes I want to ask about my condition, but see the nurses are focused on filling in the data. I feel bad if I interrupt." (P09, interview February 13, 2026)

Other patients said:

"I still believe in the ability of nurses, but it feels like our relationship isn't as close as I expected it to be when I was being treated." (P17, interview February 17, 2026)

From the nurses' side, some admit that the use of technology can affect patients' perception of the care given.

"Maybe patients think we're paying more attention to computers than they are, when in fact the data we fill in is also for patient safety." (N06, interview February 17, 2026)

Despite this, most patients still show a high level of confidence in the professional competence of nurses. The vulnerability of trust that arises is more related to the emotional and relational aspects than the clinical aspect.

The Need to Balance Technology and Human-Centered Care

The last theme shows that there is agreement between patients and nurses on the importance of balancing the use of technology with a humanistic approach. Almost all participants acknowledged the benefits of technology in improving service efficiency, but emphasized that therapeutic communication remains irreplaceable.

One patient stated:

"Technology does make the service faster, but as a patient I still need attention and direct communication from the nurse." (P03, interview February 10, 2026)

Similar statements also emerged from nurses:

"Technology is supposed to help us provide better service, not replace the relationship with patients. Instead, communication must remain a priority." (N01, interview February 10, 2026)

Another nurse added:

"I think the biggest challenge today is how to use technology optimally without losing the human side of nursing practice." (N11, interview February 20, 2026)

Overall, the findings show that the digitalization of health services provides significant operational benefits, but at the same time has the potential to reduce the quality of therapeutic communication if it is not balanced with a human-centered nursing care-oriented service strategy. These findings indicate the need for a technology integration model that maintains therapeutic presence, empathy, and interpersonal relationships at the core of modern nursing practice.

DISCUSSION

The results of the study show that the dominance of technology in nursing services has changed the communication pattern between nurses and patients. Key findings show that the use of electronic medical records, computers, tablets, and digital documentation systems has led some nurses to focus more on devices than on direct interaction with patients. This does not mean that technology is always negative, as digitalization still helps efficiency, documentation accuracy, and patient safety. However, when technology becomes the main focus in nursing practice, therapeutic communication experiences a decline in aspects of presence, eye contact, empathy, active listening, and emotional support. These findings are in line with the study of Dailah et al. (2024) which explains that artificial intelligence and digital technology in nursing can improve the quality of services, but still require human supervision so as not to reduce the relational dimension of services.

The first findings, namely the shift of nurses' focus from patients to digital documentation, reinforce Peplau's theory of interpersonal relationships that places communication as the primary basis of therapeutic relationships. In the theory, nurses not only act as executors of clinical procedures, but also as emotional companions who help patients understand the condition, reduce anxiety, and build a sense of security. When nurses' time and attention are absorbed by digital systems, therapeutic relationships become more administrative and transactional. This is supported by research by Nurwahyuni et al. (2024) who found that nurse therapeutic communication is related to patient satisfaction in health services. Thus, the results of this study show that the quality of nursing services is not enough to be measured from the speed of digital documentation, but also from the quality of the human presence of nurses in the treatment room.

The second finding showed a decrease in the dimension of empathy and therapeutic presence. Some patients feel that the nurses remain professional, but the relationships that are formed feel less personal. The important significance of these findings is that patients not only need the right medical measures, but also need emotional recognition as human beings who are in a vulnerable state. Gunawan's research (2025) shows that nurses' therapeutic communication is significantly related to patient satisfaction, with a $p < 0.001$ value and a high odds ratio. This means that therapeutic communication has a big role in shaping patients' perception of service quality.

The third finding shows the emergence of vulnerability to patient trust. Patients basically still believe in the clinical competence of nurses, but start experiencing emotional distance because they feel nurses are more busy with digital devices. This condition is important because patient trust is not only built by technical ability, but also by the perception that nurses are present, caring, listening, and understanding the patient's needs. Rahagia et al. (2025) affirm that therapeutic communication plays a role in building trust, reducing anxiety, and increasing inpatient satisfaction. Thus, the study expands on previous understandings: a decline in therapeutic communication does not necessarily directly undermine clinical trust, but can create a "trust vulnerability" on emotional and relational aspects.

The fourth finding shows that patients and nurses alike recognize the importance of a balance between technology and human-centered care. Technology is understood as a tool that accelerates service, but it should not replace interpersonal relationships. This is in line with Ahmed et al. (2024) who stated that the integration of artificial intelligence in nursing has great potential to improve efficiency, but must still consider human involvement, ethics, and the quality of care relationships. Therefore, the results of this study confirm that the success of nursing digitalization does not only depend on the sophistication of the system, but also on the ability of hospital organizations to maintain the value of empathy, communication, and patient trust.

Conceptually, this research makes an important contribution by introducing the relationship between three main concepts, namely technology dominance, therapeutic communication erosion, and patient trust vulnerability. The novelty of this study lies in the way the research explains that technology not only affects the work efficiency of nurses, but also reshapes the emotional experience of patients in receiving services. Previous research has focused more on therapeutic communication in relation to patient satisfaction, while this study places therapeutic communication in the context of the more complex digitalization of nursing. Thus, the main novelty of this study is the development of the perspective that the digitalization of health services can create a paradox: on the one hand it increases clinical efficiency, but on the other hand it has the potential to weaken therapeutic closeness if it is not managed humanistically.

Factors that support the results of this study are the high demands of digital documentation, nurse workload, hospital orientation on administrative efficiency, and lack of therapeutic communication training in a digital environment. These factors put nurses in a dilemma between completing data inputs on time and maintaining in-depth conversations with patients. However, there are also findings that are not entirely negative, namely that patients still acknowledge the professional competence of nurses. This shows that technology does not directly remove patient trust, but shifts the form of trust from emotional relationships to technical-clinical trust. This distinction is important because it shows that the intervention needed is not a rejection of technology, but rather a reorganization of digital practices to be more communicative, empathetic, and patient-centered.

The limitation of this study lies in the limited scope of participants of 20 patients and 12 nurses, so the results cannot be generalized to all hospitals. In addition, this study uses a phenomenological approach that emphasizes subjective experience rather than quantitative measurement of intervariable relationships. Follow-up research is recommended using a mixed-method design with a larger number of respondents to test the relationship between the intensity of technology use, the quality of therapeutic communication, patient satisfaction, and patient trust. Future research can also develop a digital therapeutic communication training model for nurses so that technology can be used without reducing empathy and therapeutic presence.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that the dominance of technology in nursing services has created significant changes in the communication patterns between nurses and patients. The use of electronic medical records, digital devices, and technology-based documentation systems has been proven to increase the operational efficiency of services, but at the same time has the potential to cause an erosion of therapeutic communication characterized by a reduced intensity of interpersonal interaction, empathy, therapeutic presence, and emotional support to patients. The findings of the study also show that the vulnerability of patient trust does not arise in the clinical competency aspect of the nurse, but rather in the emotional and relational dimensions formed through therapeutic communication. The novelty of this research lies in the disclosure of the conceptual relationship between technology dominance, therapeutic communication erosion, and patient trust vulnerability in the context of digital nursing, which broadens the understanding of the social and relational consequences of digital transformation in the healthcare sector. Therefore, hospitals and healthcare institutions need to develop a human-centered nursing care model that is able to integrate the use of technology with therapeutic communication practices so that digital efficiency can go hand in hand with maintaining the quality of the nurse-patient relationship.

Based on these findings, it is suggested that health institutions not only focus on improving digital infrastructure, but also provide ongoing training on therapeutic communication in a technology-based service environment (digital therapeutic communication). Nurses need to be encouraged to maintain interpersonal contact, empathy, active listening, and emotional patient engagement despite working in an increasingly digitized system. In addition, health information system developers need to consider technology designs that are more user-friendly and support direct interaction between nurses and patients. Further research is recommended to use a mixed-method or quantitative approach with a broader hospital coverage to test the relationship between the intensity of technology use, the quality of therapeutic communication, patient satisfaction, and patient confidence levels more comprehensively.

FURTHER STUDY

This study is limited to exploring the experiences of patients and nurses within a qualitative phenomenological framework and a relatively small participant group. Future research is recommended to employ mixed-method or quantitative approaches involving larger and more diverse healthcare settings to examine the relationships among technology utilization, therapeutic communication quality, patient trust, patient satisfaction, and healthcare outcomes. Further studies may also develop and evaluate intervention models such as digital therapeutic communication training and human-centered nursing care frameworks to ensure that technological advancement enhances, rather than diminishes, the therapeutic relationship in modern nursing practice.

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