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Original research

The relationship between nurses' therapeutic communication and anxiety levels among patients receiving their first chemotherapy session: A cross-sectional study

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ABSTRACT

Background: Patients receiving their first chemotherapy session often experience anxiety due to uncertainty about treatment procedures, side effects, and physical changes. Nurses' therapeutic communication is considered an essential intervention to provide emotional support and reduce anxiety.

Purpose: This study investigated the relationship between nurses' therapeutic communication and anxiety in patients who received first chemotherapy session.

Method: This quantitative cross-sectional study was conducted from August to December 2025. Seventy-five first-time chemotherapy patients were recruited using inclusion and exclusion criteria. Data were collected using a 10-item Therapeutic Communication Questionnaire and the Hamilton Anxiety Rating Scale (HARS). Univariate and bivariate analyses were performed using the Chi-square test at $p < 0.05$.

Result: Among 75 patients completed the questionnaire, the findings showed that most respondents experienced high levels of therapeutic communication (76%) and had no anxiety (66.7%). The bivariate analysis demonstrated a significant correlation between therapeutic communication of nurses and anxiety levels among first chemotherapy session patients ($p = 0.004$).

Conclusion: There is a significant relationship between nurses' therapeutic communication and anxiety in first-time chemotherapy patients. Effective therapeutic communication was associated with lower anxiety levels. Strengthening nurses' therapeutic communication skills may serve as an effective strategy to reduce anxiety and support nurse-led consultations prior to first treatment sessions.

1. Background

Cancer diagnosis and its subsequent treatment, particularly chemotherapy, represent a profound and often distressing experience for patients. The initiation of chemotherapy, specifically the first cycle, is frequently associated with heightened psychological distress, including significant levels of anxiety [1]. This initial phase is characterized by uncertainty regarding treatment efficacy, potential adverse effects, and the overall impact on quality of life, leading to a complex emotional landscape for patients [2]. Unmanaged anxiety can negatively affect treatment adherence, coping mechanisms, and overall patient outcomes, underscoring the critical need for effective supportive interventions [3] Cancer cases continue to increase year after year. Data on cancer cases worldwide has reached 14 million cases, with a death rate of 8.2 million annually [4], [5]. In fact, according to the World Health Organization (WHO), cancer deaths are estimated to continue to rise to more than 13.1 million by 2030. The Basic Health Research (Riskesdas) found that the number

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of cancer patients in Indonesia increased from 1.4 per thousand in 2013 to 1.8 per thousand in 2018 [6], [7].

Cancer is the second leading cause of death after heart disease in Indonesia, and globally, it is the leading cause of death [7]. Currently, treatment for cancer patients focuses on two procedures: surgery and chemotherapy. Chemotherapy is considered a complex treatment for cancer patients because it requires adherence. Chemotherapy management can cause very bad physical conditions, namely hair loss and physiological functions can be disrupted, this can cause a decrease in self-esteem, shame and can increase anxiety in patients who will undergo chemotherapy, especially in patients who have just undergone chemotherapy management in the early stages [8].

Anxiety is an emotional response to a threat, either directly or indirectly. Anxiety experienced by patients who received first chemotherapy session is a very common problem and is one of the causes of interrupted chemotherapy treatment, because anxiety in chemotherapy patients can affect the patient's motivation to undergo chemotherapy, thus affecting the chemotherapy program they will undergo [9], [10]. Patients who will undergo treatment therapy often feel anxious about the therapy procedure that will be given because the therapy is related to changes that will occur in the normal function of the body so that patients often ask questions and worry about their safety. The anxiety that occurs can reduce the number of immune cells, cause disruption of cytokine activation of T lymphocyte cells, and cause the growth of malignant cells until the cancer expands to other parts of the body[11].

The anxiety experienced by cancer patients' chemotherapy stems from a lack of information about their condition, including both the management procedures and the treatment. This is consistent with research by Marlisa & Aulia, which found that cancer patients undergoing chemotherapy tend to experience anxiety due to their concerns about their condition, even fear of death [6]

Nurses, as frontline healthcare providers, play a pivotal role in mitigating patient distress through various interventions. Among these, therapeutic communication stands out as a fundamental, non-pharmacological approach aimed at establishing a trusting relationship, providing emotional support, and facilitating information exchange [12]. Therapeutic communication extends beyond mere information delivery; it encompasses active listening, empathy, reassurance, and patient education, all tailored to address the patient's unique psychological and emotional needs [13]. The quality of nurse-patient communication has been consistently linked to improved patient satisfaction, reduced perceived stress, and enhanced psychological well-being across various clinical settings [14] Nurse communication is needed to provide understanding to patients in undergoing the chemotherapy treatment process. Therapeutic communication of nurses in cancer patients plays an important role in the patient's healing process because it uses an interpersonal communication approach between patients and nurses based on observations made by researchers, there are often deficiencies in the communication process between nurses and patients, where the way nurses communicate with patients is still less than optimal [15], [16].

Despite the recognized importance of therapeutic communication in oncology nursing, there remains a research gap concerning its specific impact on anxiety levels during the critical first cycle of chemotherapy. While general studies have explored communication in cancer care, few have specifically focused on this initial, highly vulnerable period where anxiety is often at its peak [17]. Therapeutic communication is professional communication carried out by nurses or health workers that is planned and has a purpose and is focused on the patient's healing process. This communication is used to create a good relationship between nurses and patients so that the patient's needs are met. The purpose of therapeutic communication is to help overcome problems related to their condition, help patients make the right decisions, improve the emotional experience of patients or families and provide stimulus to achieve the desired recovery [18], [19]. However, unfortunately, not all nurses could communicate effectively, there are still nurses who lack good communication skills. This study investigated the relationship between nurses' therapeutic communication and anxiety in patients who received first chemotherapy session.

2. Methods

2.1 Research design

This study employed a cross-sectional design to explore the correlation between Therapeutic

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Communication of Nurses and anxiety levels patients. Data collection was conducted from August to December 2025.

2.2 Setting and sample

The population in this study were patients who received first session of chemotherapy. To determine the sample size, the researchers established criteria. Cancer patients undergoing chemotherapy for the first time, in a state of compos mentis and in stable condition without complications were the inclusion criteria for sampling. The exclusion criteria were chemotherapy patients with weak general condition and severe psychological disorders. A total of 75 respondents who met these criteria participated in this study.

2.3 Instruments and data collection

Data was collected through self-administered questionnaires. This study used the Therapeutic Communication Questionnaire, developed from therapeutic communication theory, consisting of 10 statements about how nurses apply therapeutic communication to patients. The validity and reliability of the instrument were rigorously evaluated through a pilot study. The validity test demonstrated that the calculated R-values (r-count) for all items were significantly greater than the r-table value, indicating that each item was valid. Furthermore, the reliability test yielded a Cronbach's alpha coefficient of 0.881, confirming high internal consistency and reliability for the research context. Patient anxiety was measured using the standardized Hamilton Anxiety Rating Scale (HARS).

2.4 Data analysis

The data collected during the study were then subjected to univariate and bivariate analyses. Frequencies and percentages were used to summarize Therapeutic Communication of Nurses and anxiety levels. The chi-square test was performed to determine the association between Therapeutic Communication of Nurses and anxiety levels with a significance level set at $p < 0.05$. All analyses were conducted using SPSS software (version 26).

2.5 Research ethics

Ethical approval was obtained from the KEPPIN's ethics committee (Approval Number: 002160/KEP STIKes Medistra Indonesia/2025) valid from 05 June 2025 – 05 June 2026. Participants and their legal guardians were provided with detailed information about the study's objectives, procedures, and confidentiality measures. Written informed consent was obtained from all participants and their guardians. Participation was voluntary, and participants could withdraw at any time without consequence. Data confidentiality was maintained throughout the study.

3. Results

The finding reveals a significant relationship between Therapeutic Communication and Anxiety Level. The results show that from Table 1 of the 75 respondents (100%), most respondents were in the high therapeutic communication category, namely 57 respondents (76%). Of the 75 respondents (100%), most respondents were in the no anxiety category, namely 50 respondents (66.7%).

Table 1. Nurses' Therapeutic Communication dan Anxiety Level (n = 75)

Variable	Frequency	Percentage (%)
Nurses' Therapeutic Communication		
Low	18	24.0
High	57	76.0
Anxiety Level		
None	50	66.7
Mild	22	29.3
Moderate	3	4

Based on table 1, 75 respondents (100%), the majority were in the high nurse therapeutic communication category, namely 57 respondents (76%), with the highest level of anxiety in the not anxious category, namely 50 respondents (66.7%).

Based on statistical analysis with a significance level of 95% or a value of α 5% (0.05), the results of the Chi Square Test obtained a p-value (0.004) < α value (0.05) this result support the hypothesis that high therapeutic communication of nurses are associated with a mild even none anxiety level.

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Table 2. Correlation between Nurses' Therapeutic Communication dan Anxiety Level

Nurses' Therapeutic Communication	Anxiety Level								*Pvalue*
	None		Mild		Moderate		Total		
	N	%	N	%	N	%	N	%	
Low	0	0	15	20	3	4	18	24	0.004
High	50	66.7	7	9.3	0	0	57	76	
Total	50	66.7	22	29.3	3	4	75	100	

4. Discussion

The results of the bivariate analysis in this study showed a significant correlation between therapeutic communication and the anxiety levels of patients who received first chemotherapy session. This means that the better the therapeutic communication provided by nurses, the lower the patient's anxiety levels tend to be. This finding is in line with research showing that therapeutic communication has a significant relationship with patient anxiety levels, where patients who receive good therapeutic communication tend to experience less anxiety than patients with less-than-optimal communication [20]. Previous research also reported a significant relationship between nurses' therapeutic communication and patient anxiety with a p value <0.05, indicating that effective communication can help patients reduce anxiety before undergoing medical procedures [21].

Theoretically, therapeutic communication is an important part of nursing practice that aims to help patients overcome emotional and psychological problems [22]. Therapeutic communication is defined as an interaction intentionally designed to improve a patient's emotional well-being through techniques such as active listening, empathy, clarification, and providing appropriate information. Through effective communication, patients can express their feelings of anxiety, fear, and uncertainty so that nurses can provide appropriate emotional support. The literature states that therapeutic communication is a fundamental component of nursing practice that plays a role in increasing patient comfort and reducing stress and anxiety experienced by patients [23]. This is explained in the article Therapeutic Communication in Nursing Students: A Concept Analysis, which states that therapeutic communication is a basic component of nursing practice that aims to improve emotional well-being [24].

In patients, anxiety often arises due to uncertainty about the procedure, side effects of treatment, and changes in physical condition that will be experienced [5]. Empirical evidence shows that cancer patients need strong emotional support because they often experience anxiety, stress, and fear during cancer therapy [25]. Studies show that establishing a good relationship between nurses and patients through therapeutic communication can help patients express their feelings and increase trust, thereby reducing anxiety. Research on nurses' experiences in therapeutic communication with cancer patients shows that empathetic and supportive communication can increase patient comfort and help reduce anxiety by establishing a trusting relationship [26]. This is supported by the research Experience of Nurses about Outcomes of Therapeutic Communication with Patients Suffering from Cancer, which states that therapeutic communication plays a role in increasing patient confidence and providing emotional comfort during treatment [27].

The significant relationship between nurses' therapeutic communication and anxiety in this study indicates that therapeutic communication plays a crucial role as a non-pharmacological intervention in reducing patient anxiety. Patients tend to have high levels of anxiety due to their lack of prior experience with chemotherapy procedures. Therefore, consistent, empathetic, and informative therapeutic communication can help patients understand the treatment process, reduce uncertainty, and increase feelings of safety and trust in healthcare professionals [28], [29]. Researchers argue that improving nurses' therapeutic communication skills through regular training and supervision is necessary as an effort to improve the quality of nursing services and reduce the anxiety of patients [30]. This opinion is also supported by the previous study "Effect of Narrative Nursing Intervention on Anxiety of Patients Undergoing Chemotherapy", which shows that structured and

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ongoing communication can help patients express feelings of anxiety so that anxiety can be reduced significantly [31]. While this study provides valuable insights into the relationship between nurses' therapeutic communication and patient anxiety, several limitations must be acknowledged like Small Sample Size. Although the sample met the minimum requirements for statistical power, the relatively small sample size (n=75) may limit the ability to conduct more complex subgroup analyses or to detect smaller effect sizes that could be present in the broader population. Besides that, Participants may have provided socially desirable answers, particularly regarding their perception of nursing care, out of fear that negative feedback could affect their ongoing treatment or relationship with the healthcare team. Future research should consider multi-center longitudinal designs with larger, more diverse samples and incorporate objective observational tools to complement self-reported data. Exploring mediating factors such as health literacy and social support would also provide a more nuanced understanding of this relationship.

5. Conclusion

Based on the results, it can be concluded that there is a significant relationship between nurses' therapeutic communication and anxiety levels. Patients who received better therapeutic communication from nurses tended to experience lower levels of anxiety, particularly during the early phase of chemotherapy when patients often face uncertainty, fear, and emotional distress. Therapeutic communication plays an important role in providing emotional support, enhancing patient understanding of the treatment process, and building trust between nurses and patients. Therefore, improving therapeutic communication skills through continuous training and professional development is recommended to enhance the quality of nursing care and reduce anxiety among patients undergoing initial chemotherapy.

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