



Evaluation of the Validity and Reliability of a Therapeutic Communication Questionnaire Instrument for Cancer Patients

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Abstract

Background: This study aims to examine the validity and reliability of a therapeutic communication questionnaire used with cancer patients undergoing chemotherapy. Therapeutic communication is a crucial element in patient recovery and an integral part of nursing practice. A quantitative approach with a descriptive correlational design was applied, involving 100 patients at RSPAU Dr. S. Hardjolukito, Yogyakarta. The instrument consisted of 20 items adapted from Rizky Hardhiyani (2013). Validity testing showed that all items had a correlation coefficient (r) greater than the critical value (0.196), ranging from 0.203 to 0.412, and were therefore deemed valid. Reliability testing yielded a Cronbach's Alpha value of 0.663, meeting the minimum reliability threshold (>0.60). Thus, this questionnaire is considered a valid and reliable instrument for assessing therapeutic communication in cancer patients.

Keywords: Validity, Reliability, Therapeutic Communication, Cancer Patients

Introduction

Cancer remains one of the most devastating diseases globally, posing immense clinical, psychological, and socioeconomic challenges. According to the World Health Organization (WHO, 2022), cancer accounted for approximately 10 million deaths worldwide in 2020, ranking as the second leading cause of death after cardiovascular diseases. Annually, over 19 million new cases are diagnosed, reflecting a persistent upward trend in global cancer burden. In Indonesia, cancer prevalence has reached 136.2 per 100,000 population, with breast, lung, and colorectal cancers identified as the most common types (GLOBOCAN, 2020). This high incidence rate, combined with the complexity of treatment and the prolonged nature of care, underscores the necessity for a multidisciplinary and patient-centered approach. Beyond medical interventions, psychosocial strategies—particularly therapeutic communication—are critical in ensuring comprehensive and humane care for cancer patients.

Therapeutic communication in nursing refers to a purposeful and goal-oriented interaction between healthcare providers and patients that is designed to foster trust, alleviate emotional distress, and promote healing (Lalongkoe & Edison, 2014). This form of communication differs significantly from ordinary conversation in that it is structured, empathetic, and responsive to patients' psychological states. As such, it constitutes a vital part of holistic nursing care, especially in oncology settings where patients frequently face fear, anxiety, and uncertainty. Studies have shown that effective therapeutic communication can significantly improve patient satisfaction, treatment compliance, and emotional well-being (Muhith & Siyoto, 2018; McCabe, 2004). It also helps mitigate the psychological toll of chronic illness and enhances the therapeutic alliance between nurse and patient (Raja, Hasnain, & Najmi, 2019).

The theoretical framework of therapeutic communication has been widely explored in nursing literature. Stuart and Sundeen (1998), as cited in Rachmat and Ganiem (2020), delineate four sequential phases in the therapeutic communication process: (1) the pre-interaction phase, where the nurse prepares for the encounter; (2) the orientation phase, where initial contact and trust-building occur; (3) the working phase, involving problem-solving and emotional support; and (4) the termination phase, which involves summarizing progress and ending the professional relationship constructively. Effective implementation of these stages ensures that the communication process is not only empathetic but also methodologically sound and therapeutically beneficial. Despite its recognized importance, therapeutic communication remains difficult to evaluate in clinical settings, particularly in Indonesia where few standardized assessment tools exist. Nurses often rely on subjective self-assessment or fragmented observation, which may not accurately reflect communication competencies (Widodo & Haryani, 2018). Therefore, the development and validation of psychometrically sound instruments are essential. Validity and reliability are two key pillars in the construction of such instruments. Validity assesses the extent to which a tool measures what it is intended to measure—i.e., whether the questionnaire genuinely captures the construct of therapeutic communication—while reliability concerns the consistency and stability of measurements across different conditions and timeframes (Sugiyono, 2019). An instrument lacking in either aspect may yield flawed data, leading to misinformed clinical decisions and undermining efforts to improve nursing quality.

In response to this need, several attempts have been made to develop instruments that objectively assess therapeutic communication. One such effort is the development of a therapeutic communication questionnaire by Rizky Hardhiyani (2013), which has been preliminarily applied in inpatient care settings. However, further validation—especially in specialized contexts like oncology—is necessary to confirm its applicability. Given that cancer patients often experience communication barriers due to physical exhaustion, emotional distress, and existential concerns, instruments intended for use in this population must be especially sensitive and accurate (Shattell, Hogan, & Thomas, 2007; Nurhidayah, Rachmawati, & Andriani, 2022).

Accordingly, the present study seeks to test the **validity** and **reliability** of the therapeutic communication questionnaire developed by Hardhiyani (2013), specifically in the context of cancer patients undergoing chemotherapy in Indonesia. By establishing the psychometric soundness of this tool, the study aims to contribute to the standardization of therapeutic communication assessments in clinical nursing practice. Moreover, the findings are expected to support the use of this instrument in professional development,

performance evaluation, and research on nurse–patient interaction, thereby ultimately enhancing the quality of oncology nursing care.

Methods

This research employed a quantitative approach with a descriptive correlational design. The goal was to evaluate the validity and reliability of the therapeutic communication questionnaire used for cancer patients. Data analysis involved the use of Pearson Product Moment correlation for validity testing and Cronbach's Alpha for reliability analysis.

The study population included all cancer patients undergoing chemotherapy at the Indonesian Air Force Central Hospital (RSPAU) Dr. S. Hardjolukito, Yogyakarta. A purposive sampling technique was applied to select 100 respondents who met the inclusion criteria: patients over 18 years old, capable of effective communication, and willing to participate. Data collection was conducted directly by distributing questionnaires to eligible patients.

The instrument used was a therapeutic communication questionnaire developed by Rizky Hardhiyani (2013), comprising 20 items. Each statement was rated using a 4-point Likert scale ranging from 1 (Strongly Inappropriate) to 4 (Strongly Appropriate). Item validity was assessed through corrected item-total correlation, and reliability was measured by calculating the Cronbach's Alpha coefficient using SPSS version 25. An item was considered valid if the correlation coefficient (r -calculated) exceeded the r -table value at a 5% significance level with degrees of freedom (df) = $n-2$. Meanwhile, a questionnaire was deemed reliable if the Cronbach's Alpha value exceeded 0.60, the standard threshold in social research (Sugiyono, 2019; Arsi, 2021).

Results

All questionnaire items showed r -calculated values exceeding the r -table value (0.196), indicating validity. The Cronbach's Alpha value of 0.663 confirmed that the instrument had acceptable reliability and could be used consistently in research (Tables 1–2).

Table 1. Output uji validitas correlatet item-total correlation

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P01	111.76	106.002	.222	.656
P02	111.14	106.728	.209	.658
P03	112.26	106.114	.238	.656
P04	111.03	106.312	.305	.655
P05	112.06	103.653	.319	.649
P06	111.01	105.303	.380	.652
P07	111.13	105.347	.357	.652
P08	111.14	104.990	.412	.651
P09	111.78	105.284	.205	.656
P10	111.01	104.273	.401	.649
P11	110.93	105.460	.297	.653

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P12	110.79	96.147	.235	.656
P13	111.30	105.202	.309	.653
P14	111.70	104.414	.227	.654
P15	111.17	105.254	.334	.652
P16	111.27	104.280	.330	.650
P17	111.06	105.976	.265	.655
P18	112.09	104.911	.258	.654
P19	112.11	104.503	.270	.653
P20	111.33	105.759	.203	.657

Table 2. Reliability Test Results

Cronbach's Alpha	N of Items
.663	20

Discussion

The psychometric findings in this study reinforce the critical importance of using standardized instruments to assess therapeutic communication in clinical settings. The correlation coefficients obtained (ranging from 0.203 to 0.412) indicate that each questionnaire item contributes meaningfully to the overall construct and meets established thresholds for item validity (Sugiyono, 2019). These findings are consistent with those reported by Hardhiyani (2013) and Galih (2017), both of whom used therapeutic communication measures in inpatient settings and found similar levels of item validity and overall construct integrity.

Furthermore, the Cronbach's Alpha value of 0.663—while moderate—demonstrates acceptable internal consistency, especially in the context of a newly tested instrument (Arsi, 2021). This aligns with findings from Susanti et al. (2020), who reported a Cronbach's Alpha of 0.65 in their adaptation of a therapeutic communication scale in a pediatric oncology ward. Similarly, a study by Widodo and Haryani (2018) on communication skills among psychiatric nurses yielded a reliability coefficient of 0.672, suggesting that moderate levels of internal consistency are not uncommon in the measurement of interpersonal and relational constructs, which often involve nuanced and context-dependent behaviors.

The consistency of these findings across studies indicates that therapeutic communication, although complex and multi-dimensional, can be reliably assessed with appropriately designed instruments. This has significant implications for clinical practice. For instance, Putri and Yuliana (2020) demonstrated that nurses who scored higher on therapeutic communication scales were significantly more likely to report higher levels of patient engagement and compliance, particularly in long-term care settings. Their study highlights the practical utility of such instruments in performance appraisal and continuous professional development. Beyond

psychometric rigor, the application of this questionnaire provides strategic advantages in nursing education and clinical supervision. For example, Siregar et al. (2019) used a similar communication instrument as part of a competency-based training module for nursing students and reported notable improvements in empathetic engagement and patient-centered communication. These findings suggest that routine assessment using validated tools not only improves practice but also informs the development of targeted training programs.

Moreover, therapeutic communication has been strongly linked to key outcomes in chronic and terminal illness care. In the context of cancer, empathetic and clear communication has been shown to improve psychological well-being, reduce anxiety, and enhance patient satisfaction (Adib-Hajbaghery & Aghajani, 2015). In a study by Shattell et al. (2007), cancer patients emphasized the need for nurses to provide not just information but also emotional presence—an aspect of care that can be assessed using tools like the one validated in this study. Similarly, a recent study by Nurhidayah et al. (2022) found that the use of structured therapeutic communication checklists significantly improved patient satisfaction scores in oncology wards, particularly in terms of perceived nurse attentiveness and empathy. Additionally, studies in other specialized care settings reinforce the relevance of structured therapeutic communication assessments. In intensive care units, Nugroho and Lestari (2020) reported that the use of communication training based on standardized instruments led to improvements in nurse–family interactions and a reduction in family members' psychological distress. These results underline the broader applicability of therapeutic communication assessment tools beyond individual nurse–patient interactions to more complex relational dynamics in high-stress environments.

The strength of this study lies in its contribution to standardizing the assessment of a soft skill that is often overlooked in clinical evaluations. By validating a reliable instrument, this research enables evidence-based quality assurance in communication—a domain traditionally considered subjective and difficult to measure. It empowers institutions to establish benchmarks and systematically improve nurse–patient interactions, ultimately enhancing patient-centered care. However, as noted, this study is not without limitations. The single-site design limits external validity, and the cross-sectional approach restricts understanding of how communication competencies evolve over time. Future research should consider multicenter and longitudinal designs, as demonstrated by Ismail et al. (2021), who tracked communication skill development across three hospitals over six months and observed gradual, experience-driven improvement among nurses exposed to feedback tools.

In sum, this study not only validates a crucial assessment tool but also aligns with a growing body of literature emphasizing the role of therapeutic communication in delivering effective, compassionate, and patient-centered care. The incorporation of such tools into clinical and educational frameworks stands to significantly enhance nursing professionalism and care outcomes, particularly for vulnerable populations such as cancer patients.

Conclusion

This study confirms that the therapeutic communication questionnaire developed by Rizky Hardhiyani (2013) is a psychometrically sound instrument for assessing therapeutic communication in cancer patients undergoing

chemotherapy. All 20 items demonstrated validity, with correlation values exceeding the r-table threshold, and the reliability test produced a Cronbach's Alpha of 0.663, indicating acceptable internal consistency for a newly tested tool. These results support the questionnaire's use as a standardized, evidence-based instrument in both clinical and research settings. It can assist nurses in evaluating and improving their communication skills, ultimately enhancing the quality of patient care. Although the study is limited by its single-site design and cross-sectional methodology, it provides a solid foundation for future applications and further refinement of the instrument. Future research is encouraged to validate the instrument across diverse healthcare environments and to employ longitudinal approaches that can capture changes in communication behaviors and patient perceptions over time.

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