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Empathic Communication in Digital Spaces: Supporting the Mental Health of Cancer Patients

Ade Rahmawati Siregar *, Dewi Kurniawati, Nurbani, Raras Sutatminingsih

Universitas Sumatera Utara, Indonesia

*Corresponding author's email: ade.rahmawati@usu.ac.id

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ABSTRACT

The importance of verbal and nonverbal communication approaches in digital spaces has become a communication approach used worldwide. This communication approach can be linked to the mental health outcomes of patients with chronic illnesses such as cancer. In communication, empathy means trying to understand another person's perspective on what they are saying. Previous research has analyzed various communication approaches in digital spaces, particularly in relation to the mental health outcomes of cancer patients, but these studies remain limited. The primary objective of this qualitative research study was to explore empathic communication in digital spaces among cancer patients in Medan, Indonesia. Data were collected through semi-structured interviews and an analysis of empathic communication perspectives. The analysis revealed that cancer patients struggling to survive rely heavily on verbal communication, through direct guidance and information that can directly motivate them to fight cancer, and non-verbal communication, through text or scenes that also inspire their enthusiasm for surviving the disease. Therefore, it is recommended that an application be developed specifically to assist cancer patients segmented by age, gender, and profession so they can easily access detailed information about empathetic perspectives to achieve mental health.

1. Introduction

A cancer diagnosis often triggers profound psychological challenges, including anxiety (prevalent in 20-30% of patients), depression (15-25%), and social isolation due to the demands of treatment (Zabora et al., 2001). Traditional support systems, such as face-to-face counseling, face barriers such as geographic access, stigma, and mobility issues (A. Maqsood, 2024). Digital spaces, including synchronous platforms (e.g., video calls) and asynchronous platforms (e.g., forums like cancercenter.id), have seen increased use, with 70% of patients interacting online for psychological support (Yoo et al., 2014).

Empathic communication, defined as the ability to understand and share a patient's emotional state while responding supportively (Rogers, 1957), has emerged as a crucial mechanism for cancer patients' recovery. Unlike neutral information exchange, empathic communication fosters trust and emotional relief for cancer patients (C. Rohani, 2018; A. Babaii, 2021). According to 2022 Global Cancer Observatory (Globocan) data, breast cancer accounted for 16.2% of total new cancer cases in Indonesia in 2022, representing 66,271 cases out of a total of 408,661 new cancer cases. Meanwhile, data from the North Sumatra Provincial Health Office shows that Medan City was the most common type of cancer in 2021, with 1,768 cases. This is illustrated in Figure 1 below:

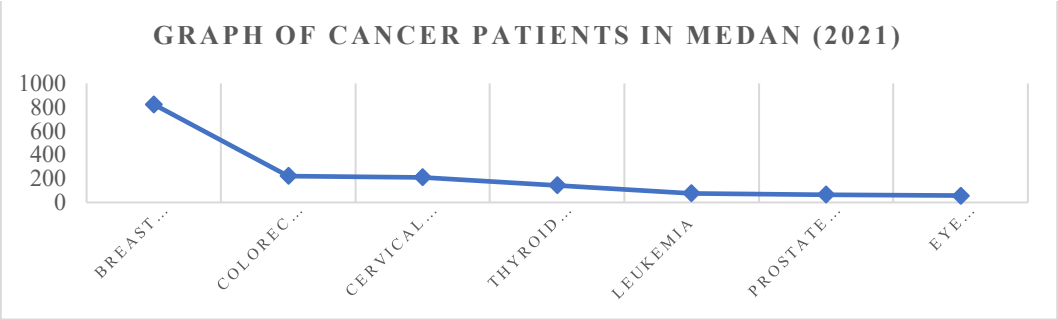


Figure 1. Cancer Patients in Medan City 2021

While there is widespread agreement on the benefits of therapeutic communication, such as empathetic communication, for the recovery of patients with chronic illnesses, more specific experimental research is needed to determine the most effective communication techniques for specific populations with chronic conditions and their impacts (Sharkiya, 2023). Addressing untreated psychological problems in chronic patients can worsen their condition, leading to deeper depression, anxiety, or even crises such as self-harm or suicidal ideation (Rizvi, 2024; Kirkbride et al., 2024; Swathi et al., 2023; Rao, 2023). Communication strategies as interventions can help prevent challenges and threats of psychological burden that disrupt the patient's survival (Albright et al., 2022; Jenstad et al., 2024; Tanti et al., 2024). Effective treatment, whether through counseling, medication, or integrated care, restores emotional balance, reduces distress, and helps patients regain energy and motivation (National Academy of Sciences, 2006). Directly improving mental health alongside physical health outcomes can reduce the risk of chronic diseases associated with stress and poor mental health (Kilbourne et al., 2017). Treatment using effective interpersonal communication strategies will equip patients to manage stress, regulate emotions, and cope with health setbacks, fostering resilience and a sense of control over their lives (Kunzler et al., 2020).

Timely psychological care can reduce the risk of serious complications that may require prolonged, traumatic, and costly hospitalization for patients and families (Johnson et al., 2022). Care through appropriate communication strategies provides more cost-effective value than managing advanced mental health crises or complications resulting from untreated psychological decline (McGinty et al., 2018). Proactive care helps normalize mental health care, reduces stigma, and encourages more patients to seek help before problems become severe (Shahwan et al., 2022). Integrating mental health support into primary care can ensure comprehensive care for both the physical and psychological aspects of the disease, leading to better outcomes (Funk et al., 2008).

In this article, the authors review the results of a descriptive analysis of the application of empathetic communication in a digital context, addressing the following research questions: (1) What are the mechanisms of empathetic digital interactions in cancer patients? (2) What are the mental health outcomes of cancer patients after interactions? and (3) What strategies should be implemented to support the mental health of cancer patients. By bridging communication theory and oncology, the authors of this article highlight the potential of digital empathy to enhance mental resilience in cancer patients as they cope with their illness.

For the literature review, Empathy in communication draws from Carl Rogers' person-centered approach, emphasizing congruence, unconditional positive regard, and empathy (Rogers, 1957). In digital spaces, this translates to verbal affirmations (e.g., "That sounds incredibly tough"), mirroring emotions, and avoiding minimization. Computer-mediated communication (CMC) theory posits that text-based platforms reduce nonverbal cues, necessitating explicit verbal empathy to compensate (Walther, 1996).

Empirical Evidence in Cancer Contexts

Studies demonstrate empathic digital interactions' efficacy. A meta-analysis of 22 RCTs (n=3,456) found online peer support with trained empathic moderators reduced depression symptoms by 0.45 standardized mean difference (SMD; 95% CI: -0.62 to -0.28; Yeo et al., 2025). Qualitative data from breast cancer forums reveal that empathic responses (e.g., "I've been there—it's okay to feel overwhelmed") correlate with lower perceived isolation (Mo et al., 2018).

Telehealth amplifies this: A RCT of 210 lung cancer patients showed video sessions with empathic therapists yielded 25% greater anxiety reduction versus standard care ($p<0.01$; Yeo et al., 2025). Asynchronous mental health tools, particularly AI chatbots designed with empathy principles and Cognitive Behavioral Therapy (CBT) techniques, have shown significant potential in improving user mood and reducing symptoms of depression and anxiety, with studies reporting high user engagement and satisfaction rates (Farzan et al., 2025).

Study Type	**Key Findings**	**Effect Size**	**Sample Size**
Meta-analysis (Yeo et al., 2025)	Reduced depression via peer forums	SMD = -0.45	n=3,456
RCT (Krzyzaniak et al., 2024)	Telehealth empathy lowers anxiety	25% reduction	n=210
Qualitative (Mo et al., 2018)	Forums decrease isolation	Thematic saturation	n=150

Challenges include "empathy fatigue" in high-volume forums and cultural mismatches in global platforms (Zeng et al., 2025).

2. Method

This descriptive qualitative study captured participants' subjective experiences without hypothesis testing (Creswell & Poth, 2018). It prioritized rich, contextual descriptions of empathetic digital interactions. Fifteen cancer patients (aged 25–50, 60% female) were purposively selected from Indonesian online communities (e.g., the Indonesian Cancer WhatsApp group). Inclusion criteria included active digital users for ≥6 months, a confirmed diagnosis, and no severe cognitive impairment. Recruitment was guided by saturation across age, gender, and occupation. Data collection through semi-structured interviews (45–60 minutes, recorded via Zoom) explored experiences with empathic exchanges. Additional data from public forum posts (n=50) provided triangulation. Interviews used a question guide that was recorded verbatim. Thematic analysis of Haan, M., & Venema, S. D. (2025) was conducted iteratively: (1) transcription, (2) familiarization, (3) coding, (4) theme development, (5) review, (6) reporting. Trustworthiness was ensured through member checking, peer discussion, and audit trail. Ethics committee approval was obtained from the University of North Sumatra. The approval was given to emphasize anonymity.

3. Result and Discussion

This In the data obtained, empathic communication in a sample of cancer patients in Medan City often begins with reflection on experiences. For example, when a patient using digital health services described her fear of chemotherapy, others who had undergone chemotherapy responded by sharing their firsthand experiences, such as physical symptoms, side effects, and emotional fluctuations. This reflection was not intended to "resolve" the suffering; rather, it served as a sign of recognition (that I had experienced it) and an attempt to normalize the suffering. This interpretation was perceived by the patient as affirmation rather than fear reduction. The real, recurring condition is that the emergence of a feeling of "wanting to be seen" in one's complexity, not just as a "cancer patient" but as someone with concerns, roles, and backgrounds, is central to the quality of empathic communication perceived in digital interactions.

3.1 Presenting the Results

The sample consistently described empathetic communication in digital spaces as a relational and iterative process, rather than a "nice message." Users reported that empathy emerged gradually, shaped by repeated interactions, mutual disclosures, and the accumulation of trusted exchanges. Some participants used metaphors such as "finding my community" or "digital family" to convey how anonymous usernames eventually became emotionally meaningful anchors in their daily lives. This finding aligns with research on online health forums, where empathy reportedly grows through cycles of self-disclosure, recognition, and responsive support, rather than isolated acts of kindness.

The findings revealed four themes in verbatim quotes (using pseudonyms).

Topic 1, Emotional Validation, described empathy as "really wanting to be seen." A breast cancer survivor shared her experience on a digital forum, and someone responded, "Your fear is real, and I've felt it too." This emotional connection was like a hug through a digital screen, instantly alleviating their anxiety.

Topic 2, Reducing Isolation, refers to digital empathy bridging physical gaps. FH, a lung cancer patient, shared that "Families avoid talking about cancer, and then online friends listen without excessive pity. It makes patients feel less alone in society or while waiting for chemotherapy."

Topic 3: Empowerment and Coping is an exchange of empathy that builds independence. ST (cervical cancer) shared that "a friend overcame obstacles by encouraging them, 'You are stronger than you know,' and that changed their mindset from victim to warrior to survivor."

Topic 4: Barriers and Improvements is a common response, where a lack of responsiveness hinders empathy, but features like emojis and voice notes support patients in gaining empathy. Half of the sample valued anonymity for patients' vulnerability about their secrets.

3.1. Discussion

3.2.1 Mechanisms of empathetic digital interaction in cancer patients

The sample consistently described empathetic communication in digital spaces as a relational and iterative process, rather than a one-off "nice message." The sample of cancer survivors using digital spaces agreed that empathy emerges through gradual mechanisms, shaped by repeated interactions, mutual disclosure, and the accumulation of trusted exchanges in digital spaces. Eighty percent of the sample participants used metaphors such as "finding my community" or "digital family" to convey how anonymous usernames (e.g., butterfly, soul, andromeda, moonlight, and so on) held emotionally meaningful accounts in their daily lives. This finding aligns with research (Yang, 2017; Hargreaves et al., 2018; Shi & Kho, 2023) on online health forums, where empathy reportedly developed through cycles of self-disclosure, recognition, and responsive support, rather than through isolated acts of kindness.

The textually mediated and asynchronous nature of digital platforms shaped both the depth and limits of empathic communication. On the one hand, the sample valued the ability to carefully edit, reread, and craft responses. This can reduce the risk of miscommunication and allow for more thoughtful and considered expressions of support. 60% reported that writing their emotions in posts served as a form of emotional regulation. This practice demonstrates that digital interaction mechanisms can be accepted, with carefully crafted replies reinforcing feelings that are taken seriously rather than feeling "rushed" or "clicked on."

On the other hand, the absence of face-to-face cues created ambivalence. 90% of participants expressed concerns about misinterpretation of tone, an excess of emoticons, or a feeling that online empathy is "shallow" due to the lack of real touch, eye contact, or shared physical presence. At the same time, the sample also noted that the anonymity and distance of digital spaces paradoxically facilitated greater openness regarding the risk of disclosure. Disclosing their struggles with cancer would be closely related to their own mental health. In contrast, in offline clinical settings, they found it difficult to openly discuss their health concerns. This duality of distance serves as both a barrier and a protective opportunity for research on digital health forums, which found that anonymity can reduce stigma while making it difficult to calibrate the emotional authenticity of cancer patients.

3.2.2 Mental health outcomes of cancer patients after interaction

Shared experiences of cancer patients' mental health outcomes after digital interactions serve as a primary framework for empathetic exchange. Participants often seek out threads or subforums where others describe similar diagnoses, treatment prescriptions, age groups, or life situations (e.g., single parents, working professionals, or early-onset/young patients). Descriptions of "chemotherapy buddies" or "hormone therapy clubs" suggest that users spontaneously construct imagined communities bounded by shared disease knowledge that can contribute to patients' mental health.

Within these perceived communities, empathic communication often operates through context-specific language, group metaphors, and inside jokes about daily routines. For the participants, a lexicon (not just a dictionary, but an entire list of words used by a particular group of people, hobby, or profession (e.g., medical lexicon, slang lexicon) indexed not only informational alignment but also emotional attunement after an interaction. The ability to "translate" clinical jargon into a narrative of lived experience helped them feel supported in their uncertainty. At the same time, 80% of participants noted that empathy can falter when the interlocutor lacks experiential closeness.

Despite the perceived benefits, this discussion also revealed persistent tensions in how the sample participants evaluated empathic communication in digital spaces. Some participants expressed concerns that online empathy could complement, but not replace, offline support. They described forums as a "backup" or "second-line" resource when family, friends, or doctors were unavailable or emotionally overwhelmed. Others worried about the risk of emotional dependence on digital communities, describing a cycle in which they felt compulsively compelled to check digital forums, but at the same time feared losing a source of comfort that had been This is what they get.

Another recurring ambivalence related to digital empathetic communication: 90% of sample participants reported that overly polished or exaggerated messages, such as repetitions of "you're strong" or "stay positive," felt like "emotional sweet talk filled with pretense" rather than genuine alignment with reality. Conversely, messages that addressed specific aspects of the user's situation (e.g., "I remember being afraid of those side effects") were perceived as more empathetic, even when they didn't offer a solution. While digital platforms can increase access to empathetic communication, they also risk standardizing or diminishing emotional nuance, especially in crowded or algorithmically generated spaces.

3.2.3 Empathetic communication strategies to support the mental health of cancer patients

Although mental health outcomes in this qualitative study were not measured quantitatively, narrative data revealed several thematic pathways through which empathetic communication appeared to support psychological well-being (mental health). Several factors may have contributed to the emergence of empathetic communication strategies among cancer patients in Medan:

(1) Participants frequently described reduced isolation and stigma when they discovered that others would share fears they previously felt were "too dark" or "too selfish" to admit.

The strategy of reading empathetic responses such as "that sounds really hard, and it's okay to feel this way" helped them reframe their emotions as "normal reactions" rather than "personal failures," which in turn reduced internalized shame in cancer patients.

(2) Empathetic exchanges often included relational frameworks for coping, rather than simply informative advice. For example, alongside practical tips (e.g., managing nausea or navigating insurance), users frequently included messages such as "you're not alone," "this phase will pass," or "you're allowed to hate treatment today." These affective statements were reported to reduce distress by providing a sense of belonging and continuity, even when participants were unable to immediately resolve their problems. This aligns with the broader social support literature showing that emotional support can mitigate the impact of stress on mental health outcomes, particularly for populations with chronic illnesses.

(3) Participants sometimes described empathic reciprocity as a source of meaning and empowerment. By offering empathy to others—sharing their own recovery stories, validating new users' fears, or simply saying, "I'm here until you feel better," they reported a regained sense of competence and contribution. This "reciprocal empathic role" counteracted feelings of helplessness, reinforcing a two-way support dynamic in which giving empathy felt as psychologically restorative as receiving it.

(4). Atmosphere, moderation, and perceived safety across age, gender, and profession. Qualitative data also highlighted that the perceived atmosphere and governance of digital spaces shape the quality and safety of empathetic communication across age, gender, and profession. Many participants compared the “warm,” “respectful,” or “gentle” tone of certain forums to more anonymous or fast-paced platforms where posts felt rude or dismissive. They credited visible

moderation practices, clear community guidelines, and employed moderators or caregivers for fostering a humane environment where empathetic exchanges were more likely to flourish. Some users indicated that knowing a moderator would intervene if someone became aggressive or dismissive gave them psychological permission to be vulnerable. In contrast, participants who entered unmoderated or loosely regulated spaces reported higher anxiety about emotional exploitation, online bullying, or being ridiculed for expressing distress. This suggests that, for digital empathetic communication to effectively support mental health, platforms must balance openness with structural safeguards, including clear norms, responsive moderation, and visible cues of care (e.g., embedded welcome messages, "read this and feel"), rather than allowing empathy to emerge solely through spontaneous interactions.

4. Conclusion

This Based on the discussion, it can be concluded that empathetic communication in digital spaces plays a significant role in supporting the mental health of cancer patients. This form of communication serves not only as a means of conveying information but also as a medium for emotional validation, alleviating loneliness, and strengthening patients' psychological resilience in coping with the treatment process and the stress of the disease. Repeated, sincere, and relevant interactions with patients have proven more meaningful than general responses or normative advice. This article shows that cancer patients in Medan City tend to feel more helped when they receive support from individuals who have had similar experiences or who demonstrate a deep understanding of their condition. In this context, digital spaces become an important platform for fostering a sense of togetherness, community, and emotional connection. Empathy, expressed in the form of affirming words, shared experiences, and non-judgmental responses, can help patients reinterpret the illness as a manageable struggle.

However, this article also demonstrates that empathetic communication in digital spaces has limitations, particularly related to the lack of nonverbal cues, the risk of misinterpretation, and the possibility of shallow or inauthentic empathy. Therefore, the effectiveness of empathetic communication is greatly influenced by the quality of interactions, platform governance, and the user's perceived sense of safety. Good moderation, a welcoming communication environment, and protection of user vulnerability are crucial factors in creating a digital space that truly supports mental health.

Recommendation: Overall, empathetic communication in digital spaces has proven to be a potentially effective support strategy for cancer patients, particularly in helping them reduce stress, isolation, and psychological burden. Therefore, developing a dedicated platform or application tailored to patient needs based on age, gender, and profession is a key recommendation for strengthening more inclusive and sustainable mental health support in Medan.

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