

ENHANCING EMPATHIC COMMUNICATION THROUGH SIMULATION: THE ROLE OF EMPATHY MAPS AND SIMULATED PATIENT FEEDBACK IN MEDICAL TRAINING

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Abstract: *This study investigates how empathic communication skills among medical and dental students can be effectively developed through simulation-based training that incorporates the Empathy Map as a structured reflective tool. Empathy, a key element of patient-centred care, is often difficult for students to apply in practice, particularly in emotionally charged or complex clinical situations. The course “Empathic and Assertive Communication in Clinical Practice,” delivered at the University of Pécs Medical School in 2023, combined theoretical instruction in clinical empathy, assertiveness, persuasive strategies, and breaking bad news with 23 simulated physician–patient encounters involving trained simulated patients and demonstrator peers. The Empathy Map was used to help students identify patients’ thoughts, emotions, prior knowledge, motivations, and barriers to cooperation. Both student-physicians and simulated patients completed the map after each encounter, providing comparable perspectives on the interaction. Additionally, the Patient–Professional Interaction Questionnaire (PPIQ) captured patient feedback on the quality of communication. The findings show that students consistently recognized patients’ thoughts and attitudes, while identifying emotions proved more difficult, reflecting the broader distinction between cognitive and affective dimensions of empathy. Patient feedback also highlighted strong performance in empathic communication behaviours, including active listening, attentiveness, calm tone, allowing time for questions, and creating a sense of trust and safety. Within the empathy-related items, patients rated “understood my feelings” higher than “was able to put themselves in my place,” aligning with the understanding of clinical empathy as primarily cognitive in nature. Students overwhelmingly found the Empathy Map to be useful for improving their communication skills, and its regular use supported the development of reflective practice and a deeper understanding of patients. However, some sections of the map remained incomplete, suggesting the need for further guidance and practice. Overall, the study demonstrates that integrating simulation-based learning with structured reflective tools can effectively enhance empathic competencies and support the development of patient-centred communication skills essential for modern healthcare.*

Keywords: *medical communication training; enhancing empathic communication;*

empathy map; simulation-based learning; reflective learning tools; health professions education

1. Introduction

In medical education, the development of students' professional competencies and knowledge is of paramount importance. However, alongside medical subject teaching, enhancing medical students' empathic communication skills is also essential for their successful and effective participation in clinical practice. The ability to communicate with empathy forms the foundation of the physician–patient relationship. It has a significant impact on patient satisfaction and compliance, thereby contributing to more effective therapy outcomes.

Enhancing communication skills among medical students is therefore a key component of their training, as effective communication is indispensable for establishing and maintaining a successful physician–patient relationship. Communication courses offer students the opportunity to acquire methods and techniques of empathic communication, enabling them to understand their patients better, support them more effectively, and treat them more effectively. Enhancing communication skills during medical training enables students to become competent and effective physicians who can respond to the individual needs of their patients. However, the current level of empathy among healthcare professionals and medical students remains suboptimal (Cairns, 2020).

The course “*Empathic and Assertive Communication in Clinical Practice*” aims to enhance the level of empathy among medical students through targeted development of empathic communication skills. The communication exercises foster practical proficiency, helping future physicians avoid communication difficulties that might otherwise hinder therapeutic success. The “*Empathic and Assertive Communication in Clinical Practice*” course was first introduced in 2021 for students enrolled in the Hungarian-language medical program, and subsequently for those in the English-language program at the University of Pécs, Medical School, Department of Languages for Biomedical Purposes and Communication. The course's objective is to allow students to practice simulated physician–patient interactions in a controlled environment at the Medical Skills Education and Innovation Centre (Medi Skills Lab) of the University of Pécs, Medical School.

Authentic clinical cases, supported by trained simulated patients who convincingly portray the role of a patient, are used in the course. During course design, particular emphasis was placed on creating communication scenarios that represent challenging situations — such as dealing with resistant or uncooperative patients, or delivering bad news — requiring the medical student, acting as the physician, to employ empathy-based communication strategies. Our primary goal was to foster shared decision-making, persuasion, and collaboration through the effective use of empathic communication methods and techniques. In the present study, we employed the *empathy map* as a tool for developing empathic communication, and we analyzed questionnaires completed by patients to assess how feedback could contribute to the improvement of medical students' communication skills.

2. Characteristics of physician–patient communication

2.1. The dominant role of physicians

In medical care, patients must comply with their physician's guidance. The physician's instructions and requests influence certain patient behaviors and often affect their entire lifestyle. Even in situations that initially appear impersonal, a confidential level of interaction between physicians and patients develops relatively quickly. Empathy is a fundamental prerequisite for establishing this level of trust. Patient cooperation can only occur when the individual has complete confidence in the person providing instructions, treatment plans, and advice.

2.2. The role of empathy in individually tailored interaction

Physician–patient communication represents a unique context in which patients find themselves in an intimate situation with a stranger — their physician — to whom they must often disclose sensitive and personal information. Patients are asked questions they may not discuss even with close family members, and they allow examinations that intrude into their intimate sphere. Therefore, this interaction must be individualized rather than based on stereotypes. Physicians must be able to communicate according to the psychological needs of each patient. In such dialogues, empathy plays a particularly significant role. As Buda (1986, p. 186) states, “*Empathy essentially provides the key to understanding the patient's individual system of communication codes.*” When patients perceive the physician–patient interaction as empathic and understanding, their cooperation increases, which in turn enhances therapeutic outcomes. Establishing an atmosphere of honesty and trust is essential, and physicians can achieve this attunement only through empathic communication. This becomes particularly important when physicians must deliver bad news. Without sufficient empathic skills, physicians may encounter difficulties in interpersonal interactions, which can negatively affect the efficacy of treatment. In employing empathy, the physician's personality is actively engaged in understanding the patient's emotional and cognitive state, directing full attention to both verbal and nonverbal communication. Therefore, improving physicians' communication skills, cultivating communicative sensitivity, and enhancing empathic abilities are of paramount importance (Buda, 1986).

3. Defining empathy

In the context of empathic communication, it is essential to clarify what empathy means from the physician's perspective. Earlier studies sought to answer two key questions: How can we know what another person thinks and feels? Moreover, what factors facilitate a sensitive and considerate response to another person's suffering? Several theories suggest that these two questions are interconnected, whereas other research has addressed only one or the other.

Batson (2011) identifies eight distinct uses of the term *empathy*:

Concept 1: Understanding another's inner state (thoughts and feelings)

This definition emphasizes the importance of comprehending what the other person feels. Such understanding requires insight into the person's internal state, including thoughts and emotions, and is often referred to as *cognitive empathy* (Eslinger, 1998; Preston & de Waal, 2002; Wispé, 1986; Zahn-Waxler, Robinson, & Emde, 1992). However, determining what others think or feel can be difficult,

especially when their expressive capacities are limited.

Concept 2: Perceptual attunement

Here, empathy is rooted in perception. The observer's posture and neural responses reflect attunement to the observed individual's situation, forming a *perception–action model* through the detection of facial expressions, posture, and motor responses (Preston & de Waal, 2002).

Concept 3: Emotional resonance

Perhaps the most common definition, empathy is seen as the ability to *feel with* another person — to experience emotions similar, though not identical to those of the other (Hoffman, 2000).

Concept 4: Affective attunement

This view emphasizes the ability to imagine what we ourselves would feel in the other person's situation.

Concept 5: Perspective taking

Empathy involves imagining what another person thinks or feels in a given context, based on verbal communication and familiarity with the other's personality, values, and desires.

Concept 6: Imaginative perspective-taking

This approach concerns imagining what the other person might think or feel if they were in someone else's place.

Concept 7: Empathic distress

Empathy is described as the feeling of distress elicited by witnessing another person's suffering — not personal anxiety, but concern for the situation itself.

Concept 8: Compassionate empathy

This final definition refers to the emotional experience of sharing in another person's suffering (Batson, 2011).

The diversity of these conceptualizations highlights that the meaning of empathic communication varies widely among individuals. Therefore, it is crucial to define which aspects of empathy can be effectively applied in clinical practice. Based on an extensive review of the relevant literature, empathy in patient care has predominantly been defined as a *cognitive* — rather than affective or emotional — attribute. It involves understanding the patient's pain and suffering, rather than *feeling* them (Hojat, 2007).

According to Silverman, Kurtz, and Draper (2013, p. 138), the two-step process of empathy in clinical practice consists of:

Understanding and sensitively appreciating another person's situation or feelings;
and

Communicating that understanding back to the patient in a supportive manner.

4. The role and benefits of empathic communication in clinical practice

Empathic communication can help reduce patients' anxiety and stress levels by allowing them to experience that their physician is attentive, listens actively, provides support, and responds appropriately to their emotions. From the patient's perspective, empathic communication fosters trust and emotional connection with the physician, enhancing satisfaction and loyalty. Empathy contributes to creating a reassuring and supportive environment in which patients feel comfortable expressing emotions and disclosing details related to their illness.

The enhancement of empathic communication skills has numerous advantages,

including:

- Patient safety and satisfaction: The quality of physician–patient communication has a significant impact on patients’ sense of safety and overall satisfaction. Effective communication helps physicians obtain accurate and detailed information from their patients.
- Reduction of medical errors: The use of verbal and nonverbal elements of empathic communication—such as clarifying questions, concise phrasing, and summarizing—reduces misunderstandings and misinterpretations, thus lowering the likelihood of medical errors.
- Patient-centred care: Applying methods and techniques of empathic communication helps medical students understand and respond to patients’ individual needs and preferences.
- Conflict management: Medical students often encounter situations that may lead to conflicts or challenging communication with patients or their relatives. Communication courses offer students the opportunity to learn effective methods of empathetic and assertive communication, as well as conflict resolution.

A growing number of studies have highlighted the importance of empathy in several key domains of medicine. Nevertheless, empathy remains a challenging concept to define. One widely accepted definition describes clinical empathy as a cognitive attribute that involves the ability to understand the patient’s inner experiences and perspective and to convey this understanding effectively (Hojat et al., 2002).

Clinical empathy—specifically within the physician–patient relationship—is often divided into two dimensions. The affective dimension refers to an individual’s passive emotional response to another person’s feelings, while the cognitive dimension represents an active skill that can be learned and developed. Neumann (2008) characterizes this latter form of empathy as “*detached concern*,” meaning the capacity to understand another person’s experience without being overwhelmed by personal emotional involvement.

Reflecting the various definitions of empathy, different institutions have developed diverse approaches to enhancing empathic communication in clinical settings, depending on which aspect they emphasize. Traditionally, the cognitive and behavioral components of empathy have been regarded as the most amenable to development. In contrast, moral and emotional empathy are often considered individual personality traits, typically not addressed within university curricula (Norfolk et al., 2007; Stepien & Baernstein, 2006).

Some institutions aim to strengthen empathy through communication exercises, reflecting a behavioral preference in defining empathy (Shapiro, Lancee & Richards-Bently, 2009; Stepien, 2006). However, students and professionals who are confused by the multiple definitions of empathy may sometimes reject such exercises, fearing emotional exhaustion in patient interactions. Consequently, training programs should clearly define empathy and address possible misconceptions.

Furthermore, aspects of medical culture itself can contribute to a decline in empathy among medical students (Barnhill Bayne, 2011). Therefore, students must participate in training programs designed to develop empathy and empathic communication throughout their medical education.

5. The Empathy Map

The empathy map is a visual tool designed to facilitate collaboration between medical students and simulated patients. Within a communication scenario, the participating medical student articulates what they have learned about the patient during the interaction. By externalizing this acquired knowledge, the student establishes a shared understanding of the patient's needs and supports joint decision-making.

Initially developed in a business context for constructing customer profiles, the empathy map synthesizes known information about an individual by visualizing what the person says, does, sees, and hears. Additional sections explore the individual's concerns, fears, frustrations, desires, and needs, while also identifying what makes the person feel content or fulfilled.

When applied in medical education, the empathy map effectively helps medical students understand another person's perspective—an essential first step in developing *therapeutic empathy*. Research involving empathy maps has shown that this tool is both practical and engaging for analyzing physician–patient interactions. Training with empathy maps encourages students to reflect on empathy and the physician–patient relationship, emphasizing the importance of empathy within clinical encounters and promoting a partnership-based model of medical communication. Completing an empathy map enables students to gain deeper insight into the patient's viewpoint by interpreting the information exchanged during the consultation. In doing so, it reinforces the three core components of clinical empathy: understanding the patient, communicating that understanding, and acting upon it in a supportive manner (Cairns, 2020). Empathy maps can also be used in group settings, where not only the participants directly involved in the physician–patient scenario (the student in the physician's role and the simulated patient) fill out the map, but also external observers. Comparing these perspectives can provide valuable feedback to the student, helping them refine their empathic communication. Receiving feedback from peers who observed the situation from an emotionally neutral, outside standpoint can be particularly effective in fostering empathy. An advanced version of this tool is the Health Empathy Map (HEM), which divides the empathy map into four quadrants and integrates the three key components of empathy: perspective-taking, emotional sharing, and empathic concern. Current findings suggest that the HEM is an effective instrument for stimulating the development of empathy. It provides a valuable means of assessing students' empathic abilities, as it highlights differences across empathy dimensions and identifies specific areas for individualized or group-based improvement (Uchôa de Resende Sousa, 2021).

The empathy map applied in the present research follows a cognitive approach. The observation sheet is divided into the following sections:

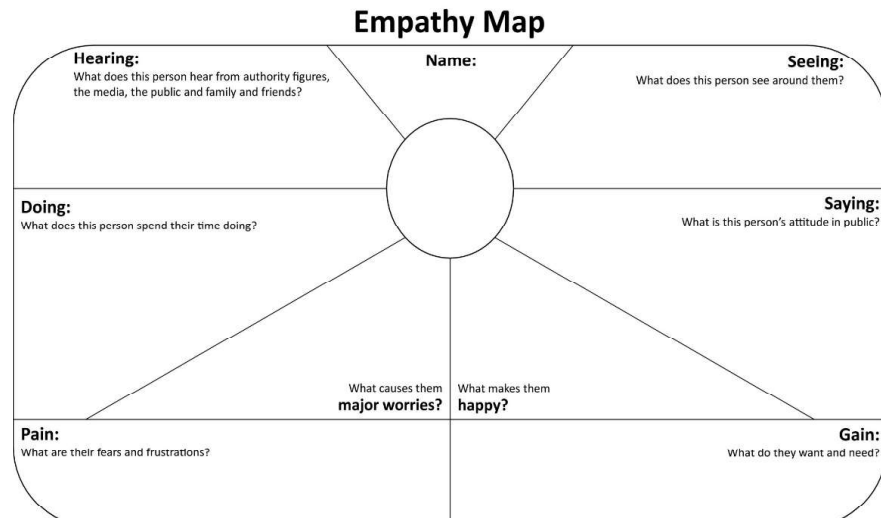


Figure 1: The empathy map

Source: <https://asmepublications.onlinelibrary.wiley.com/doi/10.1111/tct.13270>

The observation sheet is divided into the following sections:

Hearing: Information that patients have been exposed to through reading, the media, healthcare professionals, friends, family members, or public health campaigns.

Seeing: What patients have observed or experienced in their surroundings.

Doing: The actions, routines, and habits that patients engage in during their daily lives, including health-related behaviors, treatment adherence, lifestyle choices, and coping strategies that influence their overall well-being.

Saying: The words and behaviors that reflect the patient's motivation and conduct.

Pain Points and Challenges: The difficulties, obstacles, or stages of the process that hindered or delayed the achievement of their goals, impeding rather than facilitating progress.

Gain and Opportunities: The potential goals and opportunities that patients may experience once the redesign eliminates the pains and barriers that previously held them back.

6. Method

The study participants were third-, fourth-, and fifth-year medical and dental students. The research was conducted at the University of Pécs, Medical School, Department of Languages for Biomedical Purposes and Communication, within the course entitled *“Empathic and Assertive Communication in Clinical Practice.”* The course took place during the spring semester of 2023, over a period of 12 weeks, with two contact hours per week. The course was jointly led by Dr. Katalin Eklicsné Lepenye, language instructor, and Judit Szalai-Szolcsányi, language instructor and psychologist.

The course aimed to enable students to apply empathic and assertive communication techniques—introduced through theoretical sessions and supported by the principles of persuasion and shared decision-making—in

simulated physician–patient interactions. To enhance empathic communication, the use of the *empathy map* was introduced. In addition, participants playing the role of patients completed the *Patient–Professional Interaction Questionnaire (PPIQ)*, which assesses patient-centred care from the patient’s perspective (Casu, 2018). Before engaging in simulation-based practice, students participated in several weeks of theoretical instruction covering the following topics:

- Theoretical foundations of empathy, and the role and importance of empathy in medical communication (definition of clinical empathy)
- Assertive communication
- The role of persuasive communication in healthcare (managing resistant patients, persuasion, and shared decision-making)
- Breaking bad news (SPIKES model)
- Empathy map (detailed description and application)

6.1. Description of the Study

Students volunteered to take on the role of a physician in the simulated physician–patient interactions. During the sessions, demonstrator students regularly participated as patients, and on ten occasions, trained simulated patients (SPs) took on the role of patients. The simulation scenarios and patient cases were provided to the participants assisting in the study in advance. We selected scenarios in which empathic communication plays a particularly significant role, such as interactions with resistant patients and delivering bad news. The twenty medical cases were categorized as follows:

- Acute illnesses and their management (e.g., hypochondria, gastric ulcer, panic disorder)
- Explanation of surgical procedures and treatments (e.g., cholecystectomy, stent implantation, gastroscopy, tooth extraction)
- Diagnosis of chronic diseases (e.g., Wolff–Parkinson–White syndrome, hypercholesterolemia, Crohn’s disease)
- Breaking bad news (e.g., acute pancreatitis, brain tumour, Hepatitis C infection)

Before initiating the dialogue, a detailed description of the assigned scenario was provided to the student playing the role of the physician.

Before starting the simulated physician–patient interaction, the observing students were asked to take notes of their observations. The duration of each dialogue was approximately 10–15 minutes. After the student performed the assigned scenario, they received an oral, personalized evaluation and feedback. First, the student reflected on their own performance (self-reflection), sharing their thoughts and feelings with the group. Then, the simulated patient described their experiences, thoughts, and emotions during the interaction. Subsequently, the other students provided their feedback, and finally, the instructors evaluated the simulation based on the principles of effective feedback. In addition to positive reinforcement, their assessment also included constructive criticism.

For the written evaluation of the scenarios, the following tools were used:

- Empathy Map (completed by both the physician and the patient)
- Patient Questionnaire (*Empathy Scale; The Patient–Professional Interaction Questionnaire (PPIQ) to Assess Patient-Centred Care from the Patient’s Perspective*) (Casu, 2018).

Items of the *Patient–Professional Interaction Questionnaire (PPIQ)* used to assess patient-centred communication can be found in Appendix A.

The Empathy Map was completed immediately after the simulated physician–patient encounter. The patient was asked to describe, in the first person, their thoughts and feelings about the scenario, what they had previously heard or seen related to the given illness, what they said and how they behaved (representing their motivation), as well as the challenges that hindered or prevented them from achieving their goals and the possible ways to overcome these barriers. The student acting as the physician completed the same map, but from the patient’s perspective. Comparing the two maps helped students identify similarities and differences between the physician’s and the patient’s perceptions.

To measure the extent to which empathic communication was achieved, an Empathy Scale was used. After each simulated encounter, the demonstrator student or lay patient participant completed the scale.

The 16-item questionnaire measures four factors:

1. Effective communication (items 1, 3, 6, and 9)
2. Interest in the patient’s plans (items 2, 5, 7, and 14)
3. Empathy (items 4, 8, 10, and 12)
4. Facilitation of patient involvement (items 11, 13, 15, and 16)

Source: Casu, G., Gremigni, P., Sommaruga, M., & Mariani, R. (2018). *The Patient–Professional Interaction Questionnaire (PPIQ) is used to assess patient-centred care from the patient’s perspective*. *Patient Education and Counseling*, 102(1), 126–133.

7. Results

7.1. The empathy map

By using the Empathy Map, we aimed to determine whether completing it helps students better understand the patient’s perspective through the interpretation of what was said.

The results are summarized in the table found in Appendix B.

At the end of the course, students were asked to what extent the use of the Empathy Map had helped them identify the patient’s thoughts, feelings, and attitudes throughout the semester in order to promote effective therapeutic cooperation.

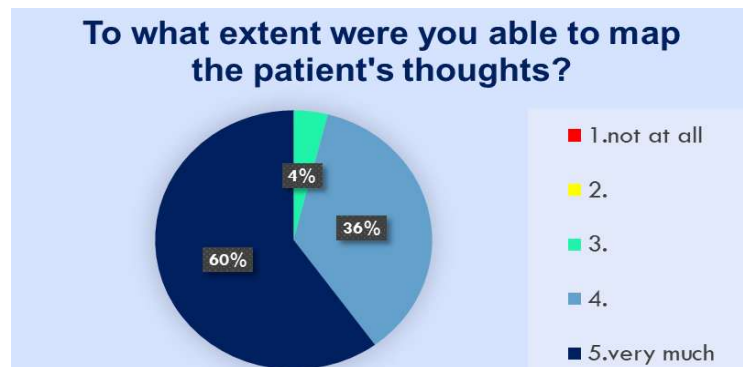


Figure 2: Students’ self-assessment of their ability to identify patients’ thoughts

The students evaluated themselves as having successfully identified the patients' thoughts. More than half of the students (60%) rated this as completely successful based on the patients' feedback.

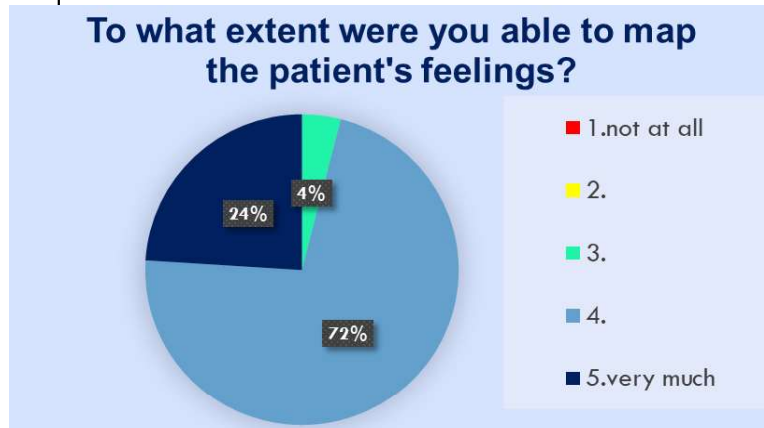


Figure 3. Students' self-assessment of their ability to identify patients' feelings

The students were able to identify the patients' emotions in each simulation; however, this aspect was not achieved as successfully. Only 24% of the respondents felt that they had fully accomplished this, while the majority (72%) rated their performance with 4 points, and 4% assessed their ability to recognize emotions as average. The recognition of emotions also depends on the extent to which a given patient expresses or conceals their feelings. In general, patients found it easier to share and articulate their thoughts than their emotions.

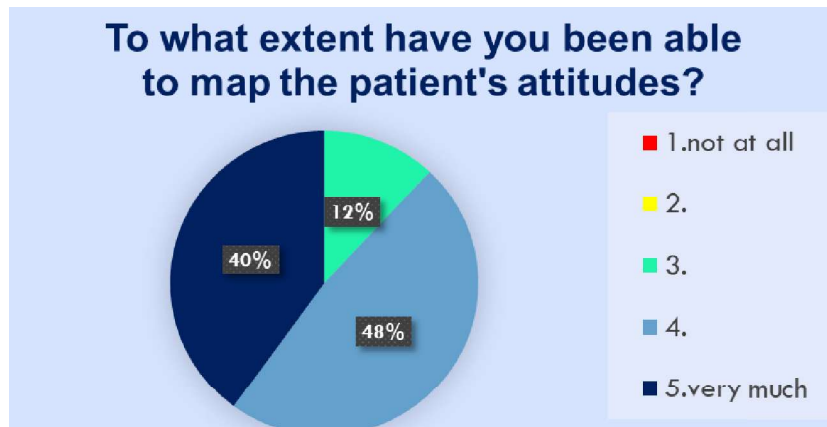


Figure 4. Students' self-assessment of their ability to identify patients' attitudes

Based on the questionnaire results, students were also successful in identifying the patients' attitudes during the simulated situations. A total of 40% of the students considered their performance to be entirely successful, while 48% rated it as almost completely successful. Persuasive communication plays a crucial role in challenging situations—such as when dealing with resistant or rejecting patients—

which the students encountered during the course. The first step in persuasive communication is to explore the patient's previous misconceptions and fears that may hinder cooperation, as well as to understand the patient's attitude toward the illness (Németh, 2007). Effective cooperation and shared decision-making can only be achieved if the patient's negative attitude can be transformed into a positive one during the conversation through the use of empathic communication. The students also provided feedback on the extent to which the Empathy Map helped them attune to the patient.

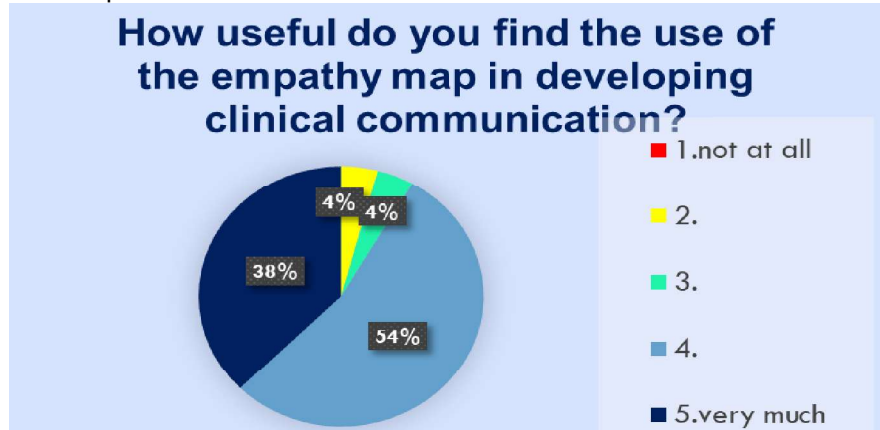


Figure 5. Perceived usefulness of the Empathy Map

The students found the Empathy Map to be valid; 92% of them believed it was either fully or almost fully beneficial for improving their communication skills.

The use of the Empathy Map is currently in an introductory, pilot phase. Our primary goal was to support medical students in becoming more aware of patients' thoughts, feelings, background knowledge, concerns, and motivations. We found that, in many cases, the physician was able to articulate the patient's perspective; however, in several instances, both participants found it challenging to describe what they had experienced during the interaction accurately. As a result, some sections remained incomplete. In some cases, the patient described their thoughts and feelings not about their own illness but about the physician, which nevertheless provided valuable feedback for the physician.

Despite the initial difficulties, with practice, participants became increasingly able to express both their own perspective as the patient and the other's perspective as the physician. Due to time constraints, it was not possible to conduct a detailed comparison and in-depth analysis of each physician–patient pair of maps. In the next phase of the research, we plan to help students and simulated patients gain a deeper understanding of how to use the Empathy Map, allocating more time for brief discussions of the reflections they record.

7.2 Patient's feedback

The maximum score for each question was five points, resulting in a total possible score of 115 points across 23 cases.

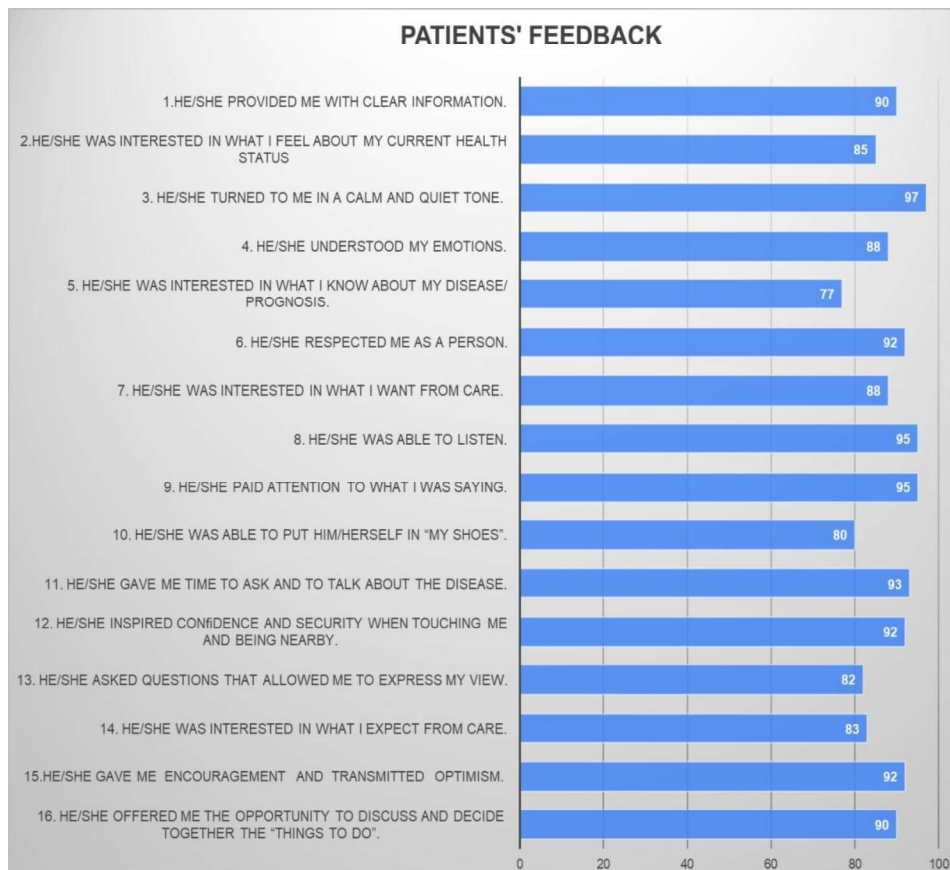


Figure 6. Summary of patients' feedback

The highest ratings from the patients were given to the following statements:

1. He/she turned to me in a calm and quiet tone (3).
2. He/she was able to listen (8). He/she paid attention to what I was saying (9).
3. He/she gave me time to ask and to talk about the disease (11).
4. He/she inspired confidence and security when touching me and being nearby (12).

In the questionnaire, the empathy factor items were questions 4, 8, 10, and 12. Among these, attentiveness and active listening received the highest scores. Within this factor, the statement "understood my emotions" was rated higher by patients than "was able to put themselves in my shoes." This difference can be explained by the concept of clinical empathy, which is primarily cognitive (involving understanding) rather than affective (involving feelings).

Interest in the patient's future plans was not strongly associated with empathic communication, which may explain why this factor received the lowest scores.

When analysing the factors and questions by simulation scenario, we found that lower scores did not depend on the type of illness but rather on how well the doctor and the patient were able to establish mutual understanding and rapport in a given situation.

8. Conclusion

The knowledge acquired and the experiences gained through the practical exercises and feedback can provide valuable support for the students' future medical careers. Patients of physicians who communicate empathically are more open to discussing their feelings and more willing to share their thoughts and questions with their doctor, which leads to more effective therapy (Hojat et al., 2002). Therefore, developing empathic communication skills among medical students is essential in medical education.

Every tool, method, and technique that facilitates this development—such as simulation-based scenarios and their verbal and written evaluations (including empathy maps and patient feedback)—can contribute effectively to this process.

Numerous studies have demonstrated that physicians who communicate with empathy elicit more information about their patients' symptoms, resulting in more accurate diagnoses and more effective treatments. Such patients receive more disease-specific information, become better informed, and take a more active role in their own recovery. They tend to cooperate more effectively with their physicians, report greater satisfaction, show reduced depressive tendencies, and experience an improved quality of life (Hojat et al., 2002).

Our study also highlighted that, in addition to empathic communication, students have a strong need to develop *assertive communication* skills. Our future goal is to integrate training that helps students learn and practice maintaining a balance between empathy and assertiveness in their interactions with patients.

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Appendix

Appendix A

Please, report here the professional qualification of the chosen clinician

Was it your first encounter with this clinician? Yes No.

- 1 He/she provided me with clear information.
- 2 He/she was interested in what I feel about my current health status.
- 3 He/she turned to me in a calm and quiet tone.
- 4 He/she understood my emotions.
- 5 He/she was interested in what I know about my disease/prognosis.
- 6 He/she respected me as a person.
- 7 He/she was interested in what I want from care.
- 8 He/she was able to listen.
- 9 He/she paid attention to what I was saying.
- 10 He/she was able to put him/herself in "my shoes".
- 11 He/she gave me time to ask and to talk about the disease.
- 12 He/she inspired confidence and security when touching me and being nearby.
- 13 He/she asked questions that allowed me to express my view.
- 14 He/she was interested in what I expect from care.
- 15 He/she gave me encouragement and transmitted optimism.
- 16 He/she offered me the opportunity to discuss and decide together the "things to do".

Appendix B

Illness	Empathy Map Question	Physician – about the patient	Patient's perspective
WPW	What prevents the patient from achieving their goal?	"Pain"	"I can't tolerate pain."
Melanoma	What prevents the patient from achieving their goal?	"Afraid to hope"	"Only blind hope in the treatment."
Bypass surgery	What has the patient heard previously?	"Age-related risk"	"Risky surgery; Hospital-acquired infection."

Dizziness	What prevents the patient from achieving their goal?	"Sceptical about physiotherapy"	"I don't believe in physiotherapy."
Dizziness	What has the patient heard previously?	"Her mother's similar symptoms worry her, as her mother had a stroke."	"My mother's stroke case, similar symptoms."
Cholesterol-lowering therapy	What prevents the patient from achieving their goal?	"She doesn't want to take medication; she wonders what happens if she skips a dose."	"Uncertainty about medications and the healthcare system."
Hypochondria	What does the patient think or feel?	"Afraid of a serious illness"	"I was sure something was seriously wrong with me."