DOCTOR–PATIENT COMMUNICATION: STUDENTS' PERCEPTIONS OF THE THERAPEUTIC RELATIONSHIP

Diana Elena MOTRUNĂ,
West University of Timisoara, Romania
Loredana – Gabriela STANA,
Victor Babes University of Medicine and Pharmacy Timisoara, Romania
Ionela – Andreea STOICOV,
West University of Timisoara, Romania
Laurențiu – Gabriel ȚÎRU,
West University of Timisoara, Romania
Vasile GHERHEȘ,
Politehnica University Timisoara, Romania

Abstract: The present study explores medical students' perceptions of communication barriers between doctors and patients, with a particular focus on how these barriers influence patient behaviour and, consequently, the quality of medical care. The research was conducted on a convenience sample of 411 students from the "Victor Babeș" University of Medicine and Pharmacy in Timișoara. Data analysis reveals that the communication barriers commonly identified in the literature are directly reflected in patient behaviour: over 82% of respondents highlighted limited health literacy as a major obstacle to correctly understanding diagnoses and prescribed treatments, while 76.8% reported non-adherence to medical recommendations. Moreover, 68% of respondents indicated that patients tend to avoid follow-up consultations, and 67.6% believe that patients frequently seek non-medical alternatives, such as online information or unvalidated treatments, which may exacerbate confusion and dissatisfaction with professional advice. Additionally, 63% highlighted patient anxiety and fear related to diagnosis as major obstacles impacting the doctor–patient relationship. Overall, the findings underline the need to strengthen communication skills within medical education, reinforcing the critical importance of clarity, empathy, and collaboration in fostering effective therapeutic relationships and improving clinical outcomes.

Keywords: medical students, healthcare professionals, patients, doctor**–**patient communication, perceptions, communication barriers, healthcare system.

1. Introduction

The doctor–patient relationship represents the foundation of medical practice and directly influences clinical outcomes, patient satisfaction, and treatment adherence. This relationship extends beyond the mere transfer of medical information, as it creates a complex human interaction that directly affects not only clinical results and patient satisfaction, but also treatment compliance and the overall standards of medical care (Rao et al., 2007).

Communication quality is an essential component of modern medicine, and the specialized literature highlights that effective communication reduces medical errors (Zolnierek & DiMatteo, 2009) and contributes to increased treatment adherence and the overall well-being of patients (Stewart et al., 2014). Contemporary medical practice has evolved from the paternalistic model, in which the physician held exclusive authority over decisions regarding patient care, to a patient-centred model based on shared decision-

making. This transition reflects social changes, the growing level of medical knowledge among patients, shifting expectations regarding patient rights, and the cultural diversity present in healthcare delivery.

The contemporary healthcare environment generates specific obstacles that complicate the physician–patient relationship. Healthcare organizations worldwide face pressures from technological advances, time constraints, administrative demands, and the cultural diversity of patients, including background, language proficiency, and health literacy. Barriers to effective communication arise not only from linguistic and cultural differences (Alkhamees & Alasqah, 2023) but also from technological interfaces that may inadvertently create distance between healthcare providers and patients (Weiner & Biondich, 2006).

The integration of technology into healthcare through electronic records, telemedicine, and digital tools has transformed doctor–patient communication. The COVID-19 pandemic accelerated these changes, highlighting both the advantages and the limitations of technology-mediated interactions.

Psychosocial factors, including patients' anxiety and emotional responses, together with physicians' stress levels and communication skills, influence how medical information is conveyed and interpreted. In addition, cultural beliefs, social factors, family dynamics, and individual communication preferences further complicate these interactions.

The barriers that hinder effective communication in the medical context are diverse and complex, including linguistic and cultural differences, psychological factors, organizational constraints, technological challenges, and social determinants of health. These do not act in isolation but interact with one another, significantly influencing doctor–patient communication, either positively or negatively.

Although extensive research has examined communication barriers from the perspective of patients and practicing physicians, considerably less attention has been directed toward how medical students, future healthcare providers, perceive these challenges. Within this framework, we examine the fundamental concepts, models, and challenges that define doctor–patient relationships, providing an understanding of how psychosocial factors and communication barriers influence interactions and outcomes in modern medical practice. By addressing these aspects, the study contributes to improving communication training in medical education and fostering more effective therapeutic relationships

2. Communication and communication barriers in healthcare

Health communication is the process of transmitting, receiving, and interpreting health-relevant information among various actors within the healthcare system: health professionals, patients, families, communities, and policymakers (Schiavo, 2013). This definition, provided by Schiavo, emphasizes the multidimensional and multi-actor nature of communication in the health field.

Health communication involves multiple levels of analysis, with distinct implications at the intrapersonal and interpersonal levels. Specifically, at the intrapersonal level, it refers to how individuals process and understand medical information. At the interpersonal level, it includes direct interactions between healthcare professionals and patients, as well as communication within medical teams. At the organizational level, it refers to information flows within healthcare institutions, and at the societal level, it

encompasses public health campaigns and health communication policies (Brashers et al., 2002).

The essential components of effective health communication include message clarity, adaptation to the target audience, bidirectional feedback, and the cultural context in which communication takes place (Nutbeam, 2000). The message must be not only scientifically accurate but also accessible, relevant, and applicable to the recipients. Adapting to the target audience involves considering their education level, cultural background, and the specific anxieties and expectations of patients.

Current information technologies have completely transformed the way communication occurs in healthcare. Telemedicine and mobile applications, along with social media (Gherheș et al., 2023) and electronic medical information systems, offer new opportunities but also present challenges for effective communication (Weiner, 2012). These technologies facilitate access to scientific information, but they can also create confusion about its accuracy.

Communication barriers in healthcare hinder or distort the effective transmission of information in the medical care process (Schillinger et al., 2003). These barriers can be classified into several categories: linguistic, cultural, psychological, organizational, and technological.

Linguistic barriers do not only refer to language differences between doctor and patient; they also include the use of technical medical jargon, which can be difficult for non-specialists to understand (Castro et al., 2007). In general, physicians tend to underestimate patients' difficulty understanding medical terminology, which can negatively affect treatment adherence and patient satisfaction. Using simple, accessible language and clear explanations of technical terms can significantly reduce these barriers.

Cultural barriers, such as differing beliefs about health and illness or divergent perspectives on patient autonomy and interpersonal relationships, can negatively affect the trust relationship between doctor and patient (Betancourt et al., 2003). These discrepancies can lead to significant misunderstandings and influence how the physician's authority is perceived (Ong et al., 1995). Such issues are increasingly important in contemporary multicultural communities concerning professionalism in healthcare.

Psychological barriers include patients' feelings of anxiety about illness, the need to deny it in certain situations, as well as psychological defence mechanisms that may arise in interactions with healthcare personnel (Ong et al., 1995). Anxiety can affect the patient's ability to assimilate information, while denial may constitute an obstacle to accepting the diagnosis or recommended treatments. It is the responsibility of medical staff to identify and address these psychological aspects to ensure effective communication.

Organizational barriers include time constraints, pressure on the healthcare system, insufficient space for confidential consultations, and fragmentation of medical care across multiple specialties (Mechanic, 1998). The limited time allocated for consultations is likely the most common organizational barrier, as physicians must convey complex information within a very short time frame.

Additionally, the literature highlights the importance of nonverbal and paraverbal cues in shaping the clinical encounter, with misunderstandings in these areas often leading to decreased trust and increased anxiety among patients. Health literacy also represents an important factor that influences patients' ability to understand and follow

medical recommendations, while physician-related variables, such as workload, stress, and limited communication training, can further impede the development of a collaborative therapeutic relationship. These interconnected elements influence not only the relational climate but also patient safety, treatment adherence, and overall healthcare outcomes, reinforcing the need to develop strong communication competencies among future physicians.

3. Methodology

This study investigates medical students' perceptions of how doctor–patient communication takes place, with a focus on the barriers encountered in this interaction. The administered questionnaire aimed to analyze students' perceptions regarding the main psychosocial aspects and communication obstacles specific to the doctor–patient relationship.

The research was conducted on a convenience sample of 411 students from the 'Victor Babeș' University of Medicine and Pharmacy Timișoara, coming from different years of study and all specializations. A quantitative approach was used, and the online questionnaire served as the primary data collection tool.

The study aims to identify communication obstacles perceived by students in the doctor–patient relationship. The applied instrument included four questions specific to the research topic, a measurement scale designed to assess the frequency with which respondents believe physicians encounter various communication barriers in their interactions with patients, a scale adapted from the literature (Communication Assessment Tool, CAT) (Makoul et al., 2007) and tailored to the respondents' profile, as well as six sociodemographic questions addressing clinical experience, gender, age, background, year of study, and the specialization pursued by the study participants. The original purpose of the scale was to evaluate interpersonal and communication skills, recognized as essential competencies that physicians must demonstrate. To this end, the authors developed and tested a patient-administered instrument to assess these skills in both physicians in training and practicing doctors. In the present study, the instrument was adapted for application to students and future physicians to evaluate how they perceive and respond to communication obstacles, thereby providing a clearer understanding of their ability to manage the doctor–patient relationship in their future practice.

In total, 411 students participated in this study, with the majority (72.7%) female respondents and 27.3% male. The distribution of respondents by background shows that most (82.1%) come from urban areas, and 17.9% from rural areas. Regarding year of study, most respondents are first-year (38.1%) and second-year (31.6%) students, followed by third-year (11.9%), fourth-year (10.4%), and fifth- and sixth-year (4% each) students. Concerning specialization, 56.5% are medical students, 6.8% are dental students, 20.8% are general nursing students, and 15.9% are residents. Regarding clinical experience, 55.4% of participants have communicated and interacted directly with patients during clinical rotations, 16.3% have participated in rotations without direct patient communication, with interactions mediated by supervising medical staff, and

28.3% have not yet had direct contact with patients, mainly first-year students who have not yet started their clinical rotations.

4. Results

For data analysis, participants' responses were examined regarding the perceived importance of the doctor–patient relationship, the extent to which communication barriers affect the quality of medical care, the perceived frequency of communication difficulties with patients, and the impact of these barriers on patient behaviour. The analysis used descriptive methods to outline the main trends and perceptions of the respondents.

To explore how participants evaluate the concrete effects of communication barriers on the doctor–patient relationship, they were allowed to select multiple response options. This approach enabled the identification of aspects considered most frequently affected by communication difficulties, as well as highlighting the predominant perceptions within the sample. Subsequently, these results were correlated with sociodemographic variables such as gender, year of study, and clinical experience to examine differences in perceptions of communication barriers across respondent categories.

Addressing the doctor–patient relationship, we analysed students' perspectives on this aspect, recognizing that, sooner or later, all of them will manage their own relationships with patients under their care.

The importance of the doctor–patient relationship	Frequency	Valid Percent
very important	365	88.8
important	43	10.5
moderate	3	0.7
Total	411	100

Table 1. Respondents' perception of the importance of the doctor–patient relationship for the success of medical care

According to the data presented (Table 1), most respondents consider the doctor–patient relationship an essential element of successful medical care. Specifically, 88.8% of participants rated this relationship as very important, 10.5% as important, and only 0.7% as moderately important. These results highlight an almost unanimous perception of the central role that the quality of doctor–patient interaction plays in the optimal conduct of the medical process.

To assess the perceived impact of communication barriers on the quality of medical care, participants were asked to rate the extent to which they believe these difficulties affect the efficient conduct of the medical process. Table 2 presents the distribution of responses, highlighting the proportions of respondents who perceive the effects of these barriers, ranging from no influence to a very high impact on the quality of medical care.

The data presented in the table indicate that most respondents believe communication barriers substantially affect the quality of medical care. Approximately 89% of participants rated these difficulties as influencing the quality of care 'to a large extent' (42.1%) or 'to a considerable extent' (46.5%), highlighting an almost unanimous consensus on the importance of effective communication in medical practice. A relatively small percentage consider the impact to be moderate (8.8%). In comparison, the values for 'to a small extent' (2.4%) and 'not at all' (0.2%) are marginal, suggesting that the perception of communication barriers as insignificant is rare among the participating students.

The extent to which communication barriers affect the quality of medical care	Frequency	Valid Percent
not at all	1	0.2
to a small extent	10	2.4
moderately	36	8.8
to a large extent	173	42.1
to a considerable extent	191	46.5
Total	411	100

Table 2. Respondents' perception of the impact of communication barriers on the quality of medical care

The table below (Table 3) illustrates the frequency with which respondents believe difficulties arise in the doctor–patient relationship. This question aims to assess the general perception of how consistently communication obstacles occur in medical practice and to provide an overview of how students evaluate the dynamics of their interactions with patients.

The frequency with which you believe difficulties arise in the doctor–patient relationship	Frequency	Valid Percent
never	1	0.2
rarely	9	2.2
sometimes	106	25.8
often	251	61.1
very often	44	10.7
Total	411	100

Table 3. Perceived frequency of communication difficulties with patients

The analysis shows that most respondents (71.8%) believe that difficulties in the doctor–patient relationship occur frequently ('often' – 61.1% and 'very often' – 10.7%). Approximately a quarter of students (25.8%) consider that such difficulties occur sometimes, indicating a moderate frequency of communication problems. Only 2.4% of participants reported a low frequency of difficulties ('rarely' or 'never').

The following question was designed to identify the main aspects affected by communication barriers in the doctor–patient relationship. Respondents were allowed to select multiple response options, thus providing a clear picture of how they perceive the impact of communication difficulties in medical practice.

Table 4 indicates that communication barriers in the doctor–patient relationship generate multiple negative consequences. The most frequently reported is the lack of understanding of the diagnosis and prescribed treatment (23%), followed by non-adherence to medical recommendations (21.5%). Other significant effects include avoiding follow-up consultations (19%), anxiety or fear related to medical care (17.6%), and seeking non-medical alternatives, such as natural remedies or unverified online information (18.9%). The total percentage exceeds 100% (358%) because respondents could indicate multiple consequences of communication barriers.

		Responses		Percent of Cases
		N	Percent	
The patient:	- does not understand the diagnosis and prescribed treatment	338	23.0%	82.4%
	- does not follow medical recommendations	315	21.5%	76.8%
	- avoids returning for follow-up consultations	279	19.0%	68.0%

	- develops anxiety or fear related to medical care	259	17.6%	63.2%
	- seeks non-medical alternatives	277	18.9%	67.6%
Total		1468	100.0%	358.0%

Table 4. Respondents' perception of how communication barriers influence patient behaviour

The data below (Table 5) indicate the frequency with which students believe that patients do not understand the diagnosis and treatment, do not follow medical recommendations, avoid consultations, experience anxiety, or seek non-medical alternatives, thus allowing a comparison of perceptions between male and female students.

Gender:		The patient:					Total:
		does not understand the diagnosis and prescribed treatment	does not follow medical recommendations	avoids returning for follow-up consultations	develops anxiety or fear related to medical care	seeks non-medical alternatives	
Masculine	Count	88	82	74	69	73	386
	% within	22.8%	21.2%	19.2%	17.9%	18.9%	
Feminine	Count	236	223	195	181	196	1031
	% within	22.9%	21.6%	18.9%	17.6%	19.0%	
Total	Count	324	305	269	250	269	1417

Table 5. Distribution of perceptions regarding the impact of communication barriers on patient behaviour by respondents' gender

The results show that both male and female students believe that patients encounter similar difficulties. The most frequently identified consequence is the lack of understanding of the diagnosis and prescribed treatment, with nearly identical percentages among men (22.8%) and women (22.9%). This is followed by non-adherence to medical recommendations (21.2% for men and 21.6% for women) and avoiding follow-up consultations (19.2% for men and 18.9% for women). Anxiety or fear related to medical care is reported slightly more frequently by male students (17.9%) compared to female students (17.6%), while seeking non-medical alternatives is perceived almost equally by both groups (18.9% versus 19.0%).

The data presented below (Table 6) illustrate how respondents, differentiated by year of study, perceive the impact of communication barriers on patient behaviour, providing a comparative perspective on how students' perceptions evolve as they advance in their clinical training.

Respondents' year of study:		The patient:					Total
		does not understand the diagnosis and prescribed treatment	does not follow medical recommendations	avoids returning for follow-up consultations	develops anxiety or fear related to medical care	seeks non-medical alternatives	
Year I	Count	124	106	98	91	87	506
	% within	24.5%	20.9%	19.4%	18.0%	17.2%	
Year II	Count	106	101	84	83	87	461
	% within	23.0%	21.9%	18.2%	18.0%	18.9%	
Year III	Count	34	37	33	24	30	158

	% within	21.5%	23.4%	20.9%	15.2%	19.0%	
Year IV	Count	33	28	24	23	31	139
	% within	23.7%	20.1%	17.3%	16.5%	22.3%	
Year V	Count	12	14	14	13	13	66
	% within	18.2%	21.2%	21.2%	19.7%	19.7%	
Year VI	Count	14	15	13	13	13	68
	% within	20.6%	22.1%	19.1%	19.1%	19.1%	
Total	Count	323	301	266	247	261	1398

Table 6. Distribution of perceptions regarding the impact of communication barriers on patient behaviour by respondents' year of study

The analysis of response distribution by year of study highlights a relatively stable perception of the consequences of communication barriers on patient behaviour. First- and second-year students report the highest frequencies of problems, particularly regarding the lack of understanding of the diagnosis and treatment (approximately 24–25%). As students' progress through the clinical years, the percentages generally remain similar, with little variation, indicating a consistent perception of the impact of poor communication. However, in years IV–VI, the proportion of students who believe that patients seek non-medical alternatives increases slightly, reaching over 22% in year IV. This variation may be explained by more intensive clinical exposure, which provides students with a more nuanced understanding of how patients respond in medical contexts.

The table below (Table 7) highlights how clinical experience influences students' perceptions of the impact of communication barriers on patient behaviour.

Clinical Experience:		The patient:					Total
		does not understand the diagnosis and prescribed treatment	does not follow medical recommendations	avoids returning for follow-up consultations	develops anxiety or fear related to medical care	seeks non-medical alternatives	
I have not yet had direct contact with patients.	Count	97	83	82	77	66	405
	% within	24.0%	20.5%	20.2%	19.0%	16.3%	
I have participated in clinical rotations but have not communicated directly with patients.	Count	49	49	34	41	44	217
	% within	22.6%	22.6%	15.7%	18.9%	20.3%	
I have communicated directly with patients during clinical rotations."	Count	179	175	153	131	159	797
	% within	22.5%	22.0%	19.2%	16.4%	19.9%	
Total	Count	325	307	269	249	269	1419

Table 7. Distribution of perceptions regarding the impact of communication barriers on patient behaviour by respondents' clinical experience

By comparing the three categories of experience, no direct contact with patients, participation in rotations without direct interaction, and direct communication in a clinical context, the table provides insight into how practical exposure shapes the understanding and anticipation of difficulties encountered in the doctor–patient relationship.

The data show that students' perceptions of the impact of communication barriers on patient behaviour remain relatively consistent across groups with different levels of clinical experience, although some notable differences exist. Students without direct patient contact report the highest percentages regarding the risk that patients may not understand the diagnosis and treatment (24%) and may not follow medical recommendations (20.5%). Students who have participated in clinical rotations without direct interaction perceive the risk that patients may seek non-medical alternatives slightly more frequently (20.3%), possibly because they indirectly observe patient behaviours without direct communication. Students who have communicated directly with patients show relatively balanced distributions across all categories, with values similar to those of the other groups, but report a lower percentage for the perception of patient anxiety or fear (16.4%).

5. Conclusions and discussion

The results highlight the essential role of communication in the doctor–patient relationship and the significant impact of communication barriers on patient behaviour. The analysed distributions show that, regardless of gender, year of study, or level of clinical experience, respondents almost unanimously recognize that communication difficulties can lead to important consequences, such as misunderstanding the diagnosis and treatment, reduced therapeutic adherence, avoidance of consultations, anxiety related to medical care, or patients turning to non-medical alternatives. This uniform perception suggests that students are aware of patient vulnerabilities in situations of poor communication, even when their direct clinical experience is limited.

The analysis of differences based on clinical experience indicates that students in the early stages of training, who have not had direct patient contact, tend to adopt a more theoretical perspective on communication problems, perceiving a pronounced impact on patient behaviour. On the other hand, students who have communicated directly with patients show more balanced distributions across the various consequences assessed, which may reflect either greater confidence in their communication skills or a more nuanced understanding, based on practical experience, of the variability in human behaviour in a medical context.

Additionally, the analysis of data by year of study shows that the same general trends are maintained throughout the entire university training, suggesting that perceptions of the impact of communication barriers remain relatively stable. However, in the final years, there is a slight increase in the proportion of students who believe that patients might seek non-medical alternatives in the absence of adequate communication, possibly related to increased exposure to complex clinical situations and the diversity of patient responses.

Overall, the study results emphasize that communication barriers have a profound impact not only on understanding medical care but also on therapeutic behaviours and the continuity of care. This highlights the need for systematic educational interventions to develop and strengthen communication skills among students and healthcare professionals. Medical training should include both theoretical components and

structured practical opportunities, allowing students to practice their skills, understand the dynamics of the doctor–patient relationship, and develop the ability to manage clinical situations characterized by vulnerability and stress effectively.

Therefore, this study highlights not only students' perceptions of a critical issue in medical practice but also provides clear directions for improving professional training to strengthen effective communication, an essential aspect for achieving optimal medical outcomes.

References

1. Alkhamees, M., and Alasqah, I. 2023. "Patient-Physician Communication in Intercultural Settings: An Integrative Review." Heliyon 9(12). https://doi.org/10.1016/j.heliyon.2023.e22667
2. Betancourt, J. R., Green, A. R., Carrillo, J. E., and Ananeh-Firempong, O., 2nd. 2003. "Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care." *Public Health Reports* 118(4), pp. 293.
3. Brashers, D. E., Goldsmith, D. J., and Hsieh, E. 2002. "Information Seeking and Avoiding in Health Contexts." *Human Communication Research* 28(2), pp. 258–271.
4. Castro, C. M., Wilson, C., Wang, F., and Schillinger, D. 2007. "Babel Babble: Physicians' Use of Unclarified Medical Jargon with Patients." *American Journal of Health Behavior* 31(1): S85–S95.
5. Gherheș V., Cernicova-Buca M., & Fărcașiu M.A. 2023. Public engagement with Romanian government social media accounts during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health* 20(3): 2372. https://doi.org/10.3390/ijerph20032372
6. Makoul, G., Krupat, E., and Chang, C. H. 2007. "Measuring Patient Views of Physician Communication Skills: Development and Testing of the Communication Assessment Tool." *Patient Education and Counseling* 67(3), pp. 333–342.
7. Mechanic, D. 1998. "The Functions and Limitations of Trust in the Provision of Medical Care." *Journal of Health Politics, Policy and Law* 23(4), pp. 661–686.
8. Nutbeam, D. 2000. "Health Literacy as a Public Health Goal: A Challenge for Contemporary Health Education and Communication Strategies into the 21st Century." Health Promotion International 15(3), pp. 259–267.
9. Ong, L. M., De Haes, J. C., Hoos, A. M., and Lammes, F. B. 1995. "Doctor-Patient Communication: A Review of the Literature." *Social Science & Medicine* 40(7), pp. 903–918.
10. Rao, J. K., Anderson, L. A., Inui, T. S., and Frankel, R. M. 2007. "Communication Interventions Make a Difference in Conversations Between Physicians and Patients: A Systematic Review of the Evidence." *Medical Care* 45(4), pp. 340–349.
11. Schiavo, R. 2013. *Health Communication: From Theory to Practice*, 2nd ed. Jossey-Bass.
12. Schillinger, D., Piette, J., Grumbach, K., Wang, F., Wilson, C., Daher, C., et al. 2003. "Closing the Loop: Physician Communication with Diabetic Patients Who Have Low Health Literacy." *Archives of Internal Medicine* 163(1), pp. 83–90.
13. Stewart, M., Brown, J. B., McWhinney, I. R., and Freeman, T. R. 2014. *Patient-Centered Medicine: Transforming the Clinical Method*, 3rd ed. London: Radcliffe Publishing.
14. Weiner, J. P. 2012. "Doctor-Patient Communication in the E-Health Era." Israel Journal of Health Policy Research 1(1), pp. 1–7.
15. Weiner, M., and Biondich, P. 2006. "The Influence of Information Technology on Patient-Physician Relationships." *Journal of General Internal Medicine* 21(Suppl 1), pp. 35–39.
16. Zolnierek, K. B. H., and DiMatteo, M. R. 2009. "Physician Communication and Patient Adherence to Treatment: A Meta-Analysis." *Medical Care* 47(8), pp. 826–834.