

# Diagnosis of Empathic Abilities of Medical Students

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## Abstract

The authors of the article focus on empathy as one of the dispositions related to the emotional functioning in the process of communication, which plays an important role in determining success in a profession. It is believed that people with higher empathy tend to solve professional, personal problems more readily in subject-subject relationships. The technique for diagnosing the empathic abilities of medical students was based on a questionnaire developed by V.V. Boyko. Methods of analytical and synthetic study of scientific and methodological literature, questioning are applied. For empirical data percent distribution and ranking are used. As a result of the study, the following levels of empathic abilities in medical students were evaluated: rational, intuitive, attitudes, penetration, identification. The authors of the article came to the conclusion that the empathic abilities of medical students are important and influential factors of communication not only in the doctor-patient model, but also in their interpersonal communication, academic performance in educational activities.

**Keywords:** communication; communicative competence; medical students; levels of empathic abilities; empathy channels; penetrating ability.

## Introduction

Numerous world studies conducted by scientists in various medical institutions have revealed differences in the results of treatment of doctors with high communication skills and those doctors who did not attach much importance to their professional activities. The research emphasizes that on average, for the entire period of his work, the doctor accepts a fair number of patients, about 200,000, and that, the key to the correct diagnosis and treatment of the patient is precisely an effective process of communication with him. It is also noted that the more experience of a doctor, the more attention he pays to verbal and nonverbal means of communication to improve professional and interpersonal interactions with colleagues, patients, their

relatives.<sup>[1-12]</sup> Accordingly, in the context of modern medical education, the importance and appropriateness of the formation and development of the communicative competence of students is updated. By the definition of scientists, communicative competence is an open-type phenomenon that is constantly increasing as it progresses in professional development, a measure of human inclusion in communicative activities, in the process of communication.<sup>[13,14]</sup>

Communication, by its very nature, is a communication process for the exchange of information between two or more individuals. The exchange of any information is possible only through verbal and non-verbal communication (signs, speeches, gestures, facial expressions, etc.). Every communication is carried out simultaneously at the level of content of information and at the level of relationships, and the level of relations determines a meaningful level. Accordingly, there is a relationship between them: the verbal channel transmits speech, verbal information in its pure form, and the non-verbal ratio to the interlocutor is transmitted.<sup>[15-17]</sup>

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The level of communication in the communication process determines empathy. Empathy is two-part. First, it is sensitivity to the emotional needs of a person, the ability to understand verbal and nonverbal manifestations of feelings (words, touches, flirting, gestures), willingness to share these feelings. “89 s. Secondly, it is the ability to respond to emotional need in a way that will be appropriate and effective for the interlocutor.<sup>[18-21]</sup>

### Material and Methods

The sample for the study consisted of first- and second-year medical students. 288. The authors of the article chose the method of V.V. Boyko<sup>[22]</sup> to diagnose students’ empathic abilities. Subjects for assessing the level of empathic abilities were generated around six areas of the empathic capacity scale: the rational channel of empathy; the emotional channel of empathy; the intuitive channel of empathy; Women who promote empathy; Penetrating ability in empathy; In empathy. Consider the general characteristics of empathy channels.

The rational channel of empathy characterizes the focus of attention, perception and thinking of the empathizer on the essence of any other person – on his condition, problems, behavior. Emotional channel

of empathy. The ability of the empathizer to enter into an emotional resonance with others is to empathize, to participate is fixed. The intuitive channel of empathy indicates the ability of the Respondent to see the behavior of partners, to act in the conditions of a lack of initial information about them, based on the experience stored in the subconscious. Attitudes that promote or hinder empathy that facilitate or hinder the operation of all empathic channels. Penetrating ability in empathy is regarded as an important communicative property of a person, which allows creating an atmosphere of openness, trust, and intimacy. Identification the ability to understand the other based on empathy, putting yourself in the place of a partner.<sup>[22]</sup>

The total score can theoretically vary from 0 to 36 points. According to preliminary data of V. V. Boyko, we can consider: 30 points or higher – a very high level of empathy; 29-22-average; 21-15-low; less than 14 points is very low.<sup>[22]</sup>

### Results and Discussion

As the results of our research, we give an example of the scale of assessments of empathic abilities of medical students (Table 1)

**Table 1. The scale of assessments of empathic abilities of medical students**

Scale of the coefficient of empathic abilities	Percentage of respondents, %	Points	Ability level
Rational empathy channel 0.1 to 0.35	76,58	17	Low
Emotional empathy channel 0.36 to 0.45	25,34	20	Below average
Intuitive Empathy Channel 0, 46 to 0, 55	17,72	26	Average
Installations that promote empathy from 0.56 to 0.65	10,10	37	High
Empathy pervasiveness from 0.66 to 0.75	4, 65	41	Very tall
Empathy identification from 0.76 to 1.00	1,76	58	High

Source: compiled by authors

The distribution of medical students by the levels of manifestation of their empathic abilities was investigated. Spontaneous interest in the interlocutor, opening the emotional reflection of the partner are characterized by a low level of manifestation of rational channel empathy more than 76% of respondents. In 25.34% of respondents, the empathy ratio is within the boundaries of 0.36 to 0.45, which states that the average level of emotional responsiveness in the partner's field, i.e. in understanding of the inner world, complicity and empathy for him. 10. 10% of respondents have a high level of emotional responsiveness and empathic perception in settings that promote or inhibit empathy.

According to our study, the most advanced channels of empathic abilities of medical students are: installations that promote empathy; penetrating ability in empathy; empathy.

### Conclusions

The questionnaire of V.V. Boyko has a simplicity in understanding the performance of tasks, is focused on a wide age range of respondents, which does not involve significant derivatives of questions on the part of researchers, does not distinguish the gender of respondents. The results of The Diagnosis of V.V. Boyko can be used by both teachers and students themselves to reflect on their emotional functioning in order to identify their strengths and weaknesses and increase their emotional awareness and adaptability to effectively work with emotionally stressful situations during daily communication with patients, peers and other medical professionals. Also, given the age-related psychological characteristics of young people between the ages of 16 and 22, suffering from excessive emotionality, youthful maximalism, students in the medical field of training can use this knowledge to improve their interpersonal skills and academic performance in educational activities, including group and team work.

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### References

1. Silverman J, Kurtz SM, Draper J. Skills for communicating with patients. Abingdon: Radcliffe Publishing Ltd, 2005. 262 p.
2. Sarapulova AV, Teplyakova OV. Communicative skills of students of a medical university: experience of observation at the department of outpatient therapy. *Med Ed and Prof Develop.* 2016; 1(23): 60-7.
3. Pun JK, Matthiessen CM, Murray KA, Slade D. Factors a communication ecting communication in emergency departments: doctors and nurses' perceptions of communication in a trilingual ED in Hong Kong. *Int J Emerg Med.* 2015; 8(1): 48.
4. Stovall MC. Oncology communication skills training: bringing science to the art of delivering bad news. *J Oncol Pract.* 2015; 6(2): 162-6.
5. Urteaga EM, Attridge RL, Tovar JM, Witte AP. Evaluation of clinical and communication skills of pharmacy students and pharmacists with an objective structured clinical examination. *Am J Pharm Educ.* 2015; 79(8): 122.
6. Yilmaz TU, Gumus E, Salman B. Problems in communication with patients in general surgery outpatient practice. *Eurasian J Med.* 2015; 47(3): 184-9.
7. Choudhary A, Gupta V. Teaching communication skills to medical students: Introducing the fin art of medical practice. *Int J Appl Basic Med Res.* 2015; 5(1): 41-4.
8. Bosse HM, Nickel M, Huwendiek S, Schultz JH. Cost-effectiveness of peer role play and standardized patients in undergraduate communication training. *BMC Med Educ.* 2015; 15: 183.
9. Towle A, Hoffman J. An advanced communication skills course for fourth-year, post-clerkship students. *Acad Med.* 2002; 77(11): 1165-6.
10. Stewart M, Brown JB, Donner A, McWhinney IR. The impact of patient-centered care on outcomes. *J Fam Pract.* 2000; 49(9): 796-804.

11. Stewart MA. Effective physician-patient communication and health outcomes: a review. *CMAJ*. 1995; 152(9): 1423-33.
12. Salminen H, Zary N, Björklund K, Toth-Pal E. Virtual patients in primary care: developing a reusable model that fosters reflective practice and clinical reasoning. *J Med Int Res*. 2014; 16(1): 23-9.
13. Stebtsova AO, Torubarova II. Foreign language at a medical university. *Bulletin of Voronezh State University. Series: Linguistics and Intercultural Communication* 2012; 2: 206-8.
14. Wagner PJ, Lentz L, Heslop SD. Teaching communication skills: a skills-based approach. *Acad Med*. 2002; 77(11): 1164.
15. Kravchenko AI. *Psychology and pedagogy*. Moscow: INFRA-M, 2011. 367 p.
16. Ostrovsky EV, Chernyshova LI. *Psychology and pedagogy*. Moscow: INFRA-M, 2016. 409 p.
17. Slastenin VA, Kashirin VP. *Psychology and pedagogy*. Moscow: Publishing House Yurayt, 2013. 295 p.
18. Srivastava K, Saumya J, Arkojvoti R, Shashikumar R, Prakash J, Basannar D. Emotional intelligence scale for medical students. *J Amer Psych Assoc*. 2011; 20(1): 39-46. DOI: 10.4103/0972-6748.98413
19. Jeong SJ. Empathy ability, communication ability, and nursing performance of registered nurses and nursing assistants in long-term care hospitals. *J Korean Acad Nurs Adm*. 2017; 23(3): 249-58.
20. Gimenez-Espert MDC, Prado-Gasco VJ. The role of empathy and emotional intelligence in nurses' communication attitudes using regression models and fuzzy-set qualitative comparative analysis models. *J Clin Nurs*. 2018; 27(13-14): 2661-72. DOI: 10.1111/jocn.14325
21. Gimenez-Espert MDC, Prado-Gasco VJ. The development and psychometric validation of an instrument to evaluate nurses' attitudes towards communication with the patient (ACO). *Nurse Educ Today*. 2018; 64: 27-32. DOI: 10.1016/j.nedt.2018.01.031
22. Boyko VV. Method for diagnosing the level of empathic abilities. 2018. Available from: <https://psycabi.net/testy/229-metodika-diaagnostiki-urovnya-empaticheskikh-sposobnostej-v-v-bojko-test-na-empatiyu-bojko>