

Communication Skills After Graduation: Opinions of Polish Healthcare Professionals

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Background: Compulsory education of communication skills has begun to develop in Poland over the past several years. The aim of this study was to explore perception of preparation by the universities and self-assessment in communication skills among Polish doctors, nurses and midwives.

Methods: The research was based on an online survey examining 22 communication skills. A list of communication skills was created based on the recommendations for teaching medical communication described in the Calgary-Cambridge model. Data collection took place from March to July 2022. The sample consisted of a variety of health professions, including physicians, nurses and midwives.

Results: The results show that medical school graduates who took part in the survey rated their preparation in communication skills as low and the number of hours dedicated to communication training as insufficient. The most challenging aspects of communication skills include dealing with patient aggression, handling patients who express complaints, grievances, or expectations and discussing non-medical treatments with patients. The surveyed nurses and midwives rated their overall preparation significantly higher than physicians and felt strong in showing empathy. Doctors in turn assessed their task-oriented communication skills as much better.

Conclusion: The respondents emphasized the importance of communication skills training. Our findings underscore the urgent need for structured, longitudinal communication training within medical education, supported by systemic changes at the levels of policy, curriculum design, and faculty development. Communication skills must be prioritized as core clinical competencies across all health professions, not treated as peripheral elements of medical education and ideally should be continued throughout one's medical career and postgraduate education. Particular emphasis should be placed on teaching how to manage patient aggression, address complaints, and communicate with patients who pursue alternative medicine and not evidence based treatment. These results may also assist universities in other countries, where medical curricula are being implemented.

Keywords: communication skills, self-assessment, undergraduate medical students, assessment of teaching communication skills

Introduction

Teaching medical communication is recognized worldwide as an important element of medical education helping to create caring and cooperative relationship based on a common understanding between medical professional, patient and his family. Anglo-Saxon nations lead the way in incorporating this topic into both undergraduate and postgraduate medical training.¹ However, many countries worldwide need to provide less theoretical and more practical approaches to teaching and implement more communication skills training.² In Poland, medical communication classes have been optional for many years. The teaching of medical disciplines in Poland is legally regulated by the Regulation of the Minister of Science and Higher Education, which forms the basis of education preparing for the medical professions. This document specifies learning outcomes that must be acquired during studies in a given field. For the first time, communication competences were officially recognized as necessary and included in the regulation in 2012.³ In subsequent documents (from 2019 and 2023), more and more learning outcomes refer to communication skills.^{4,5} The inclusion of communication learning objectives in the Regulation of the Minister of Science and Higher Education was



the beginning of the development of compulsory communication curriculum. According to the latest educational standards, as of 2023, students of medicine and dentistry are required to complete 120 hours of classes focused on communication skills as part of their studies. These courses are to be distributed across all years of the curriculum. In contrast, the 2024 update of the regulation specifying educational standards for nursing and midwifery⁶ does not define a specific number of hours dedicated to communication skills development. Instead, it outlines expected learning outcomes related to communication. The regulation also identifies “communication within the interprofessional team” as a recommended course that may be incorporated into the curriculum. Despite the introduction of these standards, the organization of communication training continues to vary across institutions, both in terms of the number of hours allocated and the format of instruction. It is anticipated that the new guidelines for medical and dental programs will lead to a more standardized approach to communication education across medical universities. However, in the case of nursing and midwifery, variation in the number of hours dedicated to communication training is likely to persist.

Based on previous research, it is known that medical students face difficulties in applying communication skills.^{7,8} At the same time both physicians and patients consider passing information about potential complications to the patients as missing.⁹ According to the national research the majority of physicians never participated in any social skills training. The most popular courses among physicians who anyway try to participate in supplementary and skills enhancement communication courses consider coping with aggression and delivering bad news (DBN) to the patients.¹⁰ Physicians often face a gap between their expectations for communication training and the limited requirements outlined in current curricula.¹¹ A large international study found that the majority of healthcare professionals are willing to participate in communication skills training.¹² Research indicates that communication skills tend to decline over time and should be continuously practiced and evaluated.¹³ Life-long courses in communication skills for medical professionals lead to an increase in self-efficacy in this area and this effect persists even six months after the training.¹⁴ What is more, there is a relationship between communication skills levels and professional burnout among health professionals. Communication skills decreased as emotional exhaustion and depersonalization increased and the communication skills level increased as the sense of personal accomplishment increased.¹⁵

The aim of the study was to assess the extent to which healthcare professionals (HCP) feel prepared by the university they graduated from to conduct conversations with patients and their relatives and to check which communication skills are the most difficult for them. There is not enough research describing the extent to which doctors, nurses and midwives feel that universities have prepared them in terms of communication skills. The analysis of communication teaching challenges in Poland might be meaningful point of reference for Eastern European or other countries where communication skills curriculum is still in the emerging process. It could help draw conclusions about difficult areas for HCP who did not have much communication training in their education and careers.

Materials and Methods

Based on the recommendations for teaching medical communication described in the literature, primarily drawing on the Calgary-Cambridge model,¹⁶ a list of communication skills was created for the participants of the study. The list included 22 items, which were as follows:

- Establishing a relationship with the patient
- Conducting an interview leaving space for long statements from the patient
- Asking appropriate questions
- Using communication techniques to facilitate conversation (such as paraphrasing, clarification, reflection)
- Using language understandable to the patient
- Providing information to the patient in a way that is understandable to them
- Presenting the benefits and risks associated with proposed tests and treatments to the patient
- Breaking bad news
- Collaboratively establishing a treatment plan with the patient (shared decision making)
- Motivating the patient to adhere to recommendations
- Demonstrating empathy towards the patient

- Picking up verbal or nonverbal cues from the patient
- Encouraging the patient to discuss difficult/intimate issues
- Dealing with patient aggression
- Assisting the patient in coping with their fears and anxieties
- Dealing with patient sadness
- Dealing with a patient who formulates complaints, grievances, or expectations
- Discussing non-medical treatments (alternative medicine, alt-med) with patients
- Discussing unhealthy behaviors with patients
- Engaging relatives in conversations with the patient
- Providing effective summaries of conversations
- Understanding the patient's perspective

The breaking bad news skill was listed in the survey only for physicians. We decided to use the term breaking bad news to make the name consistent with the skills listed in the Calgary-Cambridge model. We are aware that other terms are also proposed, for example sharing serious information.¹⁷

Approval of the Bioethics Committee of Medical University of Warsaw has been obtained (AKBE/113/2023). An online Lime survey was used as a research tool. The questionnaire was developed and administered in Polish. The questionnaire was developed by a group of researchers that included a sociologist, psychologists and doctors. All of them are also medical communication teachers. We pretested the questionnaire through a face-validity process with specialists from different disciplines (with doctors who graduated within 2–3 before the survey was implemented, and a midwife). The questionnaire consisted of 16 questions. It included questions regarding the respondent's completed field of study, university of graduation (there were 22 universities to choose from), and current professional status. Additionally, it addressed the extent of communication skills training received during undergraduate education, situations perceived as challenging in communication and patient relationships, prior experience related to the development of communication competencies, as well as opinions on the effectiveness of such training and perceived needs for further improvement in this area. When answering the question about their sense of preparation in terms of skills during their studies, respondents were asked to indicate their answer on a four-point scale: insufficient - 1, sufficient - 2, good - 3, very good - 4. Respondents were also able to select the answer 5 - difficult to say, which was excluded from the calculation of the mean. This response was intended to provide an opportunity for those who found it difficult to say clearly whether they felt prepared by the university.

Data collection took place from March to July 2022. A convenience sampling method was used. Numerous efforts were made to widely disseminate information about the study. The National and Regional Chambers of Physicians were informed about the study. An interview with one of the study's authors on the development of communication skills was published in *Gazeta Lekarska*, a journal issued by the medical professional association. At the end of the interview, a link and a QR code directing readers to the survey were provided. The survey link was also shared on social media in groups dedicated to medical professionals, as well as on the profile of the career office of two of the medical universities. Several messages were also sent to physicians active on social media, requesting their support in disseminating information about the study and the link to the survey. The link to survey was also distributed via e-mail among graduates of medical universities nationwide.

Participation in the study was anonymous. The respondents did not receive any rewards for their participation in the survey. Respondents received a link that directed them to the survey questions. Inclusion criteria for the survey consisted of completing medical studies in one of the following fields: Medical Analytics, Audiophonology, Dietetics, Electroradiology, Pharmacy, Physiotherapy, Dental Hygiene, Medicine, Medicine and Dentistry, General and Clinical Speech Therapy, Nursing, Midwifery, Emergency Medical Services, Dental Technology, and Public Health, as well as being professionally active in a healthcare-related occupation. Initially, an additional criterion required respondents to have graduated within the past three years. However, due to a low number of responses, this criterion was extended to include graduates from the past ten years. The exclusion criteria were: not currently working in the medical profession and having graduated from medical school more than 10 years earlier.

The study included 235 participants. Participation in the study was defined as the complete completion of the questionnaire and clicking the submission button. A total of 45 responses were excluded from the final sample. The primary reason for exclusion was that the respondent's profession was not related to the medical field ($n = 26$, 57.8%). The remaining 19 responses were excluded due to incomplete answers, inconsistencies in the responses, or extreme values. Due to the relatively small size of the dataset, no attempt was made to define a representative sample or to apply randomization procedures.

Statistical analysis was conducted using the Statistica 13 software. The analysis began with testing the normal distribution using the Shapiro–Wilk test. Basic descriptive statistics were calculated, and t -tests were conducted for two groups or ANOVA for multiple groups. In case of non-normal distribution, the Mann–Whitney U -test or Kruskal–Wallis ANOVA with multiple comparisons of means ranks for all samples were used. Correlation between non-normally distributed samples was calculated using the Spearman or Kendall's tau coefficient for tied ranks. The significance level was set at $\alpha = 0.05$. In the analysis, due to the non-normal distribution of the data and the unequal group sizes (ie, unbalanced group sizes), non-parametric statistical methods were employed.

Results

The research group, shown in Table 1, consisted of 190 respondents working in the medical profession. The majority of the participants in the sample were women ($n = 152$; 80%). Most respondents had graduated with a medical degree ($n = 121$; 63.7%). Among the surveyed physicians, the largest group consisted of residents ($n = 58$; 47.9%).

The respondents were graduates of the following Polish universities: Medical University of Warsaw ($n=61$; 32.1%), Collegium Medicum of the Jagiellonian University in Krakow ($n=22$; 11.6%), Medical University of Gdansk ($n=16$; 8.4%), Poznan University of Medical Sciences ($n=13$; 6.8%), Medical University of Silesia in Katowice ($n=12$; 6.3%), Pomeranian Medical University in Szczecin ($n=12$; 6.3%) and others ($n=54$; 28.4%).

Graduates of medical schools who took part in our research assessed the degree of preparation by the university in terms of communication skills as low. It is worth noting that for over half of the listed communication skills (12 out of 22), the most frequently chosen response was a poor assessment. More than half of the respondents believed that after completing their studies, they were insufficiently capable of dealing with patient aggression, addressing patient expectations and complaints, and discussing non-medical treatments (Table 2). At the same time, an excellent rating was not the most common response for any of the listed skills.

The majority of respondents (81.6%) believed that the number of hours dedicated to communication training in the curriculum was insufficient. Only 15.2% of the surveyed medics stated that they had an adequate number of communication training sessions during their studies. The vast majority of respondents would like to participate in training to

Table 1 Characteristics of the Research Group

	Sample Size	Percentage
Occupation		
Physicians	121	63.7%
Nurses	46	24.2%
Midwives	11	5.8%
Others medical professions	12	6.3%
Sex		
Women	152	80.0%
Men	38	20.0%
Year of graduation/completion of medical studies		
2021	26	13.7%
2020	44	23.2%
2019	25	13.2%
2018 and earlier	95	50.0%

Table 2 Assessment of Preparation After Undergraduate Education in Terms of Communication Skills Depending on the Profession

Skill	The Percentage of Participants Who Rated Preparation After Undergraduate Education as Insufficient	Mean (1–4 Scale; 1 - Insufficient, 2 - Sufficient, 3 - Good, 4 - Very Good)		
		Total	Physicians (n= 121)	Nurses and Midwives (n=57)
Dealing with patient aggression	61.1%	1.53	1.36	1.83
Dealing with patients who express grievances, complaints, or expectations	60.0%	1.54	1.42	1.76
Discussing non-medical treatments (alternative medicine, alt-med) with patients	55.8%	1.55	1.43	1.71
Breaking bad news	48.8%	1.80	1.85	-
Dealing with a patient's sadness	46.8%	1.80	1.59	2.20
Collaboratively establishing a treatment plan with the patient (shared decision making)	42.6%	1.94	1.76	2.28
Engaging relatives in conversations with the patient	39.5%	1.87	1.66	2.31
Encouraging the patient to discuss difficult/intimate issues	38.9%	1.95	1.79	2.24
Assisting the patient in coping with their fears and anxieties	34.2%	2.00	1.79	2.24
Using communication methods that facilitate conversation (such as paraphrasing, clarification, reflection)	33.2%	2.14	2.01	2.46
Picking up verbal or nonverbal cues from the patient	32.6%	2.16	1.92	2.60
Motivating the patient to adhere to recommendations	31.1%	2.09	1.90	2.45
Establishing a relationship with the patient	29.5%	2.18	1.97	2.57
Understanding the patient's perspective	27.3%	2.14	2.14	-
Presenting the benefits and risks associated with proposed tests and treatments to the patient	24.7%	2.29	2.18	2.53
Providing effective summaries of conversations	23.7%	2.25	2.16	2.45
Discussing unhealthy behaviors with patients	22.1%	2.23	2.02	2.61
Demonstrating empathy towards the patient	17.4%	2.49	2.21	3.07
Providing information to the patient in a way that is understandable to them	16.8%	2.49	2.32	2.81
Using language understandable to the patient	15.3%	2.51	2.35	2.82
Conducting the interview leaving space for long statements from the patient	14.2%	2.60	2.49	2.82
Asking appropriate questions	11.1%	2.60	2.63	2.54

Abbreviation: HCP, healthcare professionals.

improve their communication skills with patients. 49.5% of respondents strongly agreed with this statement and 33.2% of respondents chose the answer “rather agree”. Analyzing the mean value in response to the question about the university’s preparation in the field of communication skills, it turns out that it is at an average level of 2.10. Respondents believe that universities have best prepared them to ask patients the right questions and leave room for extended answers. They rated their proficiency in using language that is understandable to patients as slightly lower. The most challenging aspects of communication identified by the participants after completing the undergraduate education include dealing with patient aggression, with patients who express complaints, grievances, or expectations, and discussing non-medical treatments with patients. Additionally, the surveyed physicians indicated that they acquired the skill of breaking bad news to a limited extent during their studies (Table 2). Assessment of the undergraduate education in terms of communication skills differs depending on the profession. As shown in Table 2, physicians rated asking appropriate questions the highest, followed by gathering patient history, using language understandable to patients, and delivering information in a way that patients can understand. On the other hand, among the four areas rated highest by nurses and midwives, they included demonstrating empathy, providing information to the patient in a way that is understandable to them, and conducting an interview leaving space for long statements from the patient, using language understandable to patients. The worst-rated

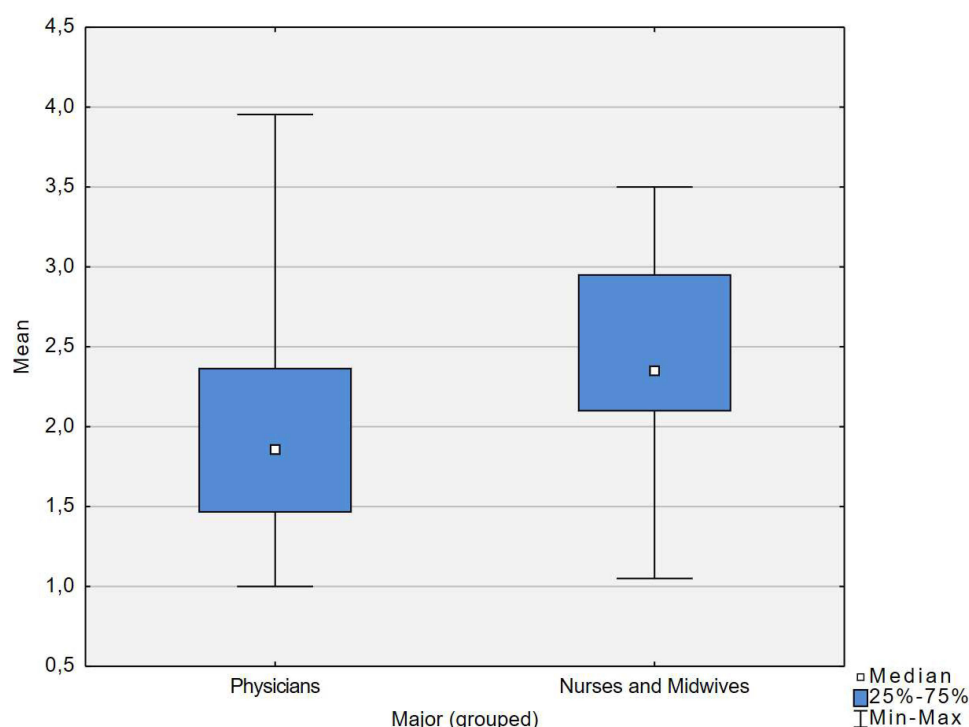


Figure 1 Relationship between professions and overall preparation assessment in terms of communication skills, mean (on a scale from 1 to 4), $n = 178$.

fields in both subgroups were talking to patients about non-medical treatments, dealing with patients who express complaints, grievances, or expectations, and handling patient aggression. There were statistically significant differences between the professions. Nurses and midwives rated their preparation in terms of communication skills significantly higher than doctors ($H(2, N = 190) = 21.20$; $p < 0.01$; $\eta^2_H = 0.10$; $z = 4.59$; $Me\ 2.35$ vs 1.8) (Figure 1). The respondents were asked to identify the 5 skills that cause the greatest difficulty in their medical practice. They indicated that the greatest difficulty for them was dealing with patient aggression. This was the opinion of as many as 66.8% of them. In second place, respondents marked dealing with a patient who expresses complaints, grievances or expectations (59.5%). Talking to patients about non-medical treatment was also in the top three, marked by 36.8% of respondents. Communicating unfavorable information was marked by 57% of physicians.

71.6% of respondents felt they were skilled enough to talk to patients and their relatives (22.1% strongly agreed, 49.5% tended to agree).

Discussion

Graduates of medical studies evaluate their preparation by the university for communication skills as inadequate. They are aware of the importance of possessing these skills in their daily professional practice which manifests itself in the fact that most feel they had insufficient communication hours during their studies and now wish they had more refresher classes on the subject. The appreciation of communication skills by medical professionals observed in our research is also consistent with the results of other studies. The majority of respondents (83.8%) in the family medicine specialist study stated that communication skills are as important as technical skills.¹⁸ However, not everyone is in agreement on this matter. In a study conducted among family doctors in China, physicians were not aware of the importance of communication skills and building relationships to improve communication with patients. They linked medical conflicts with heavy workloads, limited time per visit, and low medical literacy of patients.¹⁹ However, in a study conducted in children's hospitals in the United States, pediatric residents highly rated the importance of learning effective patient communication, demonstrating empathy and concern for patients. Participants were less confident in their communication skills regarding breaking bad news to patients and their families,

dealing with “difficult” patients or parents, cultural differences, understanding psychosocial aspects of patient care, and understanding patients’ perspectives on their illness.²⁰

The results of our study indicate how the surveyed medical professionals assess their preparation by the university in the field of communication competencies. The mediocre results may be due to the fact that fantasies about professional work clash with reality and with real patients. This real-life perspective may result in a more harsh assessment of one’s own competence and the feeling of being insufficiently prepared. Due to the data collection method, it cannot be determined to what extent these results correspond to the skills used in practice.

The respondents’ perception of insufficient preparation during education coincides with the results of other studies, also those where patient assessment was taken into consideration. Based on patients feedback, researchers demonstrated that many young doctors have deficiencies in communication skills.²¹ Patient complaints often concerned improper nonverbal cues, lack of active listening, insufficient display of empathy and respect towards the patient, using inappropriate or incomprehensible language, and not involving the patient in the decision-making process regarding their treatment. The authors of the study suggest incorporating patient perspectives into the training programs for young physicians. This would allow to develop areas of communication that require improvement. Communication courses are important at any stage of professional practice, as learners who enter a new environment start changing their views and their behaviors to align with those of the more senior members of the profession. Good habits might be replaced by less effective behaviors.²²

Physicians participating in our survey rate their preparedness to deliver bad news as low. This finding is in line with the results of other studies including a survey of fifth- and sixth-year medical students from 14 medical universities in Poland in 2021,⁸ in which the majority of students (75.1%) felt inadequately prepared to deliver bad news. In addition, 86.3% of the respondents reported the need to increase the amount of time for learning DBN competencies. This may be due to the fact that DBN is a complex skill, consisting of many individual skills, and is primarily associated with strong emotions in both the patient and the physician. Studies show that physicians may experience physiological stress reactions in this situation.²³ Tranberg et al²⁴ show that breaking bad news is more than just delivering the message and responding to emotions.

The attitudes and practices of doctors regarding challenging communication tasks can influence the risk of burnout. Physicians who perceive the delivery of unfavorable information as a stressful task are more susceptible to burnout.²⁵ Therefore, the role of communication skills training at all levels of medical professional development is emphasized.

The results of our study highlight the urgent need to place greater emphasis on medical communication training within HCP education programs. Addressing this need requires systemic changes at multiple levels, including policy-makers, medical school administrators, and medical educators. Firstly, increased financial investment in universities is necessary to allow institutions to allocate adequate resources specifically to communication skills training. At the level of medical school administration, more curricular time should be dedicated to communication training, ideally integrated throughout all years of study. A common challenge faced by medical schools is curriculum overload, which often results in insufficient time being allocated to communication training. Moreover, communication skills are frequently under-represented in clinical subjects, or they are addressed only marginally, as a secondary element during the teaching of other clinical competencies. One potential solution is to place greater emphasis on communication skills during clinical teaching. However, this requires that clinical teachers be adequately trained in communication teaching methodology.

Graduates reported that their communication skills are underdeveloped and that their education did not adequately prepare them in this regard. Many respondents emphasized a perceived lack of dedicated communication training during their studies. This insight is particularly valuable for both policymakers and medical school administrators: adequate curricular time must be allocated to the development of communication competencies. Some of these- especially those rated poorly by respondents- require substantial instructional time. This should be reflected in curriculum design. Moreover, medical educators, in particular, should be mindful that communication training must extend beyond history-taking (often seen as the core of communication skills) to include other essential components such as dealing with patient aggression, addressing expectations and complaints, discussing non-medical treatment options, and breaking bad news. These elements are central to HCP–patient interactions and deserve specific attention.

Importantly, our findings reveal that the issue of insufficient communication training is not limited to medical graduates alone. Midwives and nurses who took part in our study reported feeling underprepared in this area as well.

This suggests that communication education should not be limited to medical students but must be systematically integrated into the curricula of all healthcare-related degree programs.

Finally, it is worth noting that only recently has public awareness begun to grow- both in our country and in comparable settings- regarding the importance of communication skills training. There is a clear need to promote a shift in attitudes among both decision-makers and educators, recognizing that communication skills are equally essential as clinical skills, and in fact form a core component of clinical competence. These skills require focused and structured training, rather than being treated as incidental elements of clinical education.

Conclusions

Assessment made by graduates in terms of being prepared by the university in the field of specific communication skills provides valuable insights into the strengths and weaknesses of the communication training process. The conclusions from our study will allow to create training courses focused on the needs of the target group. Postgraduate training programs will help maintain a high level of communication skills, which will contribute to increasing the quality of patient care. These courses will also enable healthcare professionals to increase their sense of competence in specific situations related to their professional practice that were previously problematic. The results of such research will also allow to provide the modification of undergraduate curricula, so that students can acquire the necessary skills during their education.

The results of our research may be particularly useful for other universities that have been implementing communication curricula for only a few years, as in Poland. The presented Polish research sample may be a good reference point for similar countries less experienced in teaching medical communication. When designing initial communication curricula, it is important to focus on the areas identified by our respondents as particularly underdeveloped.

Limitation of the Study

An important limitation of the study is the low sample size compared to the population. Although the sample included various medical professions, it may not fully represent the broader population of HCP in Poland. Increasing the sample sizes of the studied groups would enhance the statistical validity and interpretability of the comparisons. To maximize the sample size, extensive efforts were undertaken. However, we did not have access to a national registry of healthcare professionals, which is typically available only to professional regulatory bodies. Furthermore, utilizing such a registry to distribute survey invitations would likely have compromised the perceived anonymity of potential respondents. Nevertheless, based on prior research conducted by the authors, it is evident that HCPs in Poland tend to exhibit limited willingness to participate in survey-based studies. Despite these limitations, we believe these results are worth considering. The results may not reflect the entire population, but provide an important starting point for further research and are worth taking into account when planning communication curricula.

Another limitation is that conclusions about the effectiveness and efficiency of teaching programs are formulated based on how professionals view their competencies, however, research shows that declarations do not always align with the actual skills.²⁶ A high level of confidence in a particular area does not necessarily translate into performance in that domain.²⁷ The cognitive bias known as the Dunning-Kruger effect demonstrates that unskilled individuals tend to overestimate their abilities in a given field, while highly skilled individuals tend to underestimate their skills. This bias has also been demonstrated in the medical field.^{28,29} The limitation of this study is lack of objective criteria of measurement of the level of performance during the communication process. It would be useful to provide a regular standardized method of judgement of communication skills among medics.

Data Sharing Statement

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Ethics Approval and Informed Consent

We confirm that research and a research survey were approved by the Bioethics Committee of Medical University of Warsaw (AKBE/113/2023). The consent form was the first part of the electronic survey and the returning of the form is considered as informed consent.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors declare that they have no competing interests.

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