

Selected aspects of a professional doctor-patient communication – education and practice

Anna Włoszczak-Szubzda^{1,2}, Mirosław J. Jarosz^{1,2}

¹ Department of Health Informatics and Statistics, Institute of Rural Health, Lublin, Poland

² Faculty of Pedagogy and Psychology, University of Economics and Innovation, Lublin, Poland

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Abstract

Background: In the work of a physician, not only knowledge, and professional skills (technical/hard) are important, but also psychosocial skills (relational/soft).

Objectives: The primary goal of the presented research was evaluation of the level (study of the state) of communication competences of physicians and determination of the factors on which this level depends. An additional goal was analysis of the needs and educational possibilities within the existing models of education in the area of interpersonal communication provided in Medical Universities in Poland.

Design, setting and participants: Information about educational curricula available on the websites of 12 Medical Universities in Poland were compared. The self-designed questionnaire and adjective check list were subject to standardization from the aspect of reliability and validity. The study groups included 1) occupationally-active physicians (185 respondents) employed in outpatient departments and hospitals, who were covered by a pre-graduate standard educational programme and not trained in interpersonal communication skills as part of their continuing education; 2) medical students covered by a standard educational programme (246 respondents).

Results: The conducted analysis of the educational curricula showed a very narrow scope of problems concerning professional medical communication. The results indicating the general state of respondents' communication competences within all aspects (motivation, skills, knowledge) were relatively low. That clearly indicated an inadequate educational model (students), and lack of post-graduate training in the area of professional medical communication (physicians).

Conclusions: The education of students of medicine should cover selected classes within the scope of professional communication competences. These classes should be based on the systemically designed training of skills. The patterning by students of the relations attitudes observed in practising physicians is insufficient. It is necessary to apply a methodical evaluation of communication competences, diagnosing educational needs of occupationally active physicians in this respect. This allows the preparation of courses in accordance with the needs in the area of professional communication competences.

Key words

physician, patient, communication, education

INTRODUCTION

Why does a doctor need communication skills? Perhaps this is a process taking (anyway, too short) valuable time for consultation? Perhaps it is an unprofessional inclusions of emotional aspects to occupational activities? What and for whom do such skills serve? Treatment? Patient? Physician?

Studies carried out in this area indicate that not only patient satisfaction, but also primarily the recognition of doctor's therapeutic methods (obedience of orders), as well as quicker regaining of health by a patient, depend on the doctor's communication skills, the way of passing on information, ability to show support and respect, and capability for evoking liking in a patient [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11].

Respect, and in consequence, the trust of patients are evoked primarily by physicians who are capable for expressing empathy, and in a proper way (not too laconic and not too excessive) informing patients about their state of health [12,

13, 14, 15]. However, medical relations, similar to all other forms of social interaction, requires from its participants cooperation and coordination (which is the main part of doctor's role in professional communication). It is worth considering its basic aspects, on behalf of improvement of communication itself and effective education in this area [16]. The main element of the perception of a doctor by a patient is the style of managing therapy: democratic, partnership, negotiating, paternalistic, etc.) [17]. This style may evolve according to the increase in occupational and life experience, change in the world-view, philosophy of life, and primarily under the effect of medical and communication trainings [18, 19].

The subsequent important element of doctor-patient relationship is the way of informing the patient (with respect to both: the form and contents), in combination with patience and support, expressed within the information provided. This is also accompanied with the inclination (by doctors) towards succumbing stereotypes. The higher the stereotyping of the world-view, the lower the communication level [20, 21].

And finally, the *sine qua non* condition – unconditional acceptance of the patient, without which the correct professional doctor-patient communication is not possible.

Address for correspondence: Anna Włoszczak-Szubzda, Institute of Rural Health, Jaczewskiego 2, 20–090 Lublin, Poland
e-mail: wlos131313@gmail.com.

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Posing any condition (e.g. of the type: the patient must be clean or the patient cannot be abrasive), hinders communication primarily for the doctor, who, instead of treating, checks if the patient fulfils his/her conditions, and if this is not the case, changes the medical treatment into didacticism. For better understanding, the researchers are of the opinion that the patient's education for the role of a patient is indispensable, but it has to be carried out at a proper place and time [22].

The report presents own study testing the level of professional competences of physicians of various specialties and possessing various occupational experience. Their communication competences were compared with the knowledge in this area among students of faculties of medicine. The study serves the diagnosis of several aspects of this problem: primarily the study of the status of communication competences; subsequently, the presentation of the effect of education (students) and experience (doctors) on changes in the level of competences in the field of professional communication, and finally, the planning of an adequate form of educating and training. The report presents only selected elements of the results of the study.

OBJECTIVES

The primary goal of the presented research was evaluation of the level (study of the state) of professional communication competences of physicians, and determination of the factors on which this level depends. An additional goal was analysis of the needs and educational possibilities within the existing models of education in the area of interpersonal communication provided by higher medical education institutions.

In order to achieve the presented goals, the following research problems were formulated:

1. What is the level of individual communication competences of physicians (knowledge, motivation and skills)?
2. What is the level of individual communication competences of medical students (knowledge, motivation and skills)?
3. What communication skills do professional physicians most frequently possess (or not)?
4. What communication skills do students of medicine most frequently possess (or not)?

Based on earlier own studies, the following research hypotheses were posed:

1. The level of individual communication competences (knowledge, motivation and skills) of physicians based on general psychological and communication knowledge is relatively low.
2. There are considerable differences in the level of communication competences according to work experience.

DESIGN

In the research process, three basic scopes of communication competences were considered: 1) motivation, 2) knowledge, and 3) skills. **Motivations** bias the behaviour of an individual towards the achievement of specified states of affairs which are important for this individual. The motivation process consists of a set of individual motives. A motive may be

termed an experience stimulating an individual to action, or refraining from or hindering its performance. **Knowledge** of interpersonal communication covers contents concerning what should be said or done in specified situations, and procedures based on which of these contents will be introduced into practice. It is necessary to recognize the complexity of interpersonal contacts; however, only its adequate application in practice makes a person communicatively competent [23, 24, 25]. To communication **skills** contribute, among other things, emotional intelligence, i.e. personal competences of an individual, understood as skills of recognizing own emotional states and the emotional states of others, as well as skills of using own emotions and coping with emotional states of others which, in spite of the common opinion, may be trained and developed [26, 27, 28].

The investigation of these scopes is important from the aspect of understanding the research problems posed, and a potential design of their repair programme. In the research process, three methods were used:

1. analysis of documentation (standards, education schedules, curricula and syllabuses);
2. diagnostic survey concerning professional communication competences of physicians – self-designed questionnaire;
3. testing of professional self-evaluation from the physicians aspect – the 20 items adjective check list [29].

The 54 items in the questionnaire and test examine the following:

1. within the scope of motivation:

- a) affective dimension vs. cognitive (shows to what extent communication is motivated by emotions, and to what extent by intentions, if the message is the result of the 'stream' of emotions or the effect of consideration and planning),
- b) positive vs. negative dimension (if the message is useful or harmful, advantageous or disadvantageous for a patient),
- c) directed towards 'Own self' vs. biased towards 'Others' (if the message was generated exclusively for own needs, or it considers others).

2. within the scope of knowledge:

- a) declared dimension, (what to communicate?);
- b) procedural dimension (how to communicate?).

3. within the scope of skills:

- a) dimension of carefulness (skills of showing during an interaction – interest, concern and attention to a patient or patients),
- b) dimension of expressiveness (skills of managing verbal and non-verbal communication),
- c) dimension of coordination (skills of managing the course of interaction),
- d) dimension of self-possession (in interpersonal communication this is a basic requirement of being competent).

The self-designed questionnaire and adjective test were subjected to standardization from the aspect of reliability and validity by means of:

1. pilot studies;
2. competent judges test;
3. Kendall's coefficient of concordance (Kendall's W) examining the degree of conformity assessments of competent judges;

4. test-retest method examining the reliability (stability) of the instrument;
5. t-Student test for paired samples, investigating the significance of the differences between each pair of questions in test and retest.

As a result of pilot studies investigating **face validity**, the contents of one of the questions was changed (respondents reported the lack of understanding of the concept used), and one item was added as a result of suggestions by the respondents.

Competent judges assessed **content validity** (intrinsic) of the instrument, from the aspect of adequacy of its content with respect to the objective of the study and position in theory, level of difficulty of the contents, correlation between problems, clarity of instructions, as well as the level of acceptance while completing. The group of judges consisted of 6 specialists representing the following areas of knowledge: 1) medicine, 2) philosophy/ethics, 3) pedagogy, 4) law, 5) psychology. Table 1 presents the results of examinations of the level of concordance between the judges' opinions.

Table 1. Kendall's test of the level of concordance of competent judges.

Characteristics of the instrument	w	p	\bar{r}_i	$(\bar{r}_i)^2$
Adequacy to the problem	0.86	<0.01	0.83	69%
Easiness of completing	0.87	<0.01	0.84	71%
Clarity of instructions	0.86	<0.01	0.83	69%
Level of contents acceptance	0.88	<0.01	0.86	73%
Level of contents difficulty	0.88	<0.01	0.86	73%
Correlation of problems	0.91	<0.01	0.90	81%

W – Kendall's W

p – significance

\bar{r}_i – mean correlation of evaluations

$(\bar{r}_i)^2$ – percentage of variance of general concordance of evaluations.

Reliability was investigated by means of the 'test-retest' method, by examining the same group twice, every 2 weeks. The results were calculated in a logic test (1 – concordance, 2 – lack of concordance). The mean concordance was 85%.

The last method applied for the standardization of the instrument was t-Student test investigating, with a significantly positive correlation between every pair of the questionnaire items (from test and retest), the presence of statistically significant differences. Out of 54 pairs of questions, statistical differences were observed only in two pairs.

During the studies, the following conditions of objectivity were preserved:

1. independence of the respondents (without unconscious pressure, e.g. resulting from subordination, when the surveyor is a lecturer or supervisor, and the respondents are his/her students or subordinates);
2. all respondents expressed informed consent to participate in the studies;
3. conditions of conducting the studies were standardized for all groups examined;
4. the questionnaire form included precise and clear instruction.

The data obtained were subjected to statistical analysis by means of SPSS statistical software with the use of descriptive statistics and hypothesis testing. The presence

of the differences between qualitative variables were investigated by means of Pearson's chi-square test, whereas the significance of quantitative variables was examined with the use of Student t-test. The p values < 0.05 were considered statistically significant.

SETTING

The presented research was carried out as part of a many-year programme of monitoring and evaluation of the education of medical professionals in interpersonal communication, including physicians, physiotherapist, nurses and paramedics, conducted at institutions educating medical professionals in Lublin (Poland). Moreover, information available on the websites of 12 Medical Universities in Poland was compared.

PARTICIPANTS

In a pilot study, in order to standardize the research instrument, a total number of 30 respondents were examined who were students at institutions educating medical professionals in Lublin (Poland), and occupationally-active medical professionals. The respondents participating in the pilot study were not enrolled into the main study.

Analysis of documentation covered an evaluation of official standards of paramedics education currently in effect in Poland. Based on these standards, individual schools engaged in the education of medical students develop their own education schedules, curricula and syllabuses. Curricula and syllabuses were compared in 20 Medical Universities in Poland, which were available on websites.

The study group covered a total number of 431 respondents in the following sub-groups:

1. occupationally-active physicians (185 respondents) employed in outpatient departments and hospitals, who were covered by a pre-graduate standard educational programme, and not trained in interpersonal communication skills as part of their continuing education;
2. medical students covered by a standard educational programme (246 respondents).

Students of faculties of medicine are not and have not been educated within the scope of professional interpersonal communication, classes considering this type of contents are only carried out within classes in clinical psychology.

RESULTS

Analysis of documentation

Analysis of the documentation showed that the official standards of education in medical students currently in effect in Poland assume that the students should possess knowledge and practical communication skills in this area of: communication with patients and their families, taking patient's medical history, learning skills of cooperation with others and managing teams. These, as it may seem from the above, very laconically presented skills in education to-date were included in the subject called "medical psychology" (30 didactic hours during the entire study), where the educational contents and education results were defined as

follows: “Educational contents: Psychological determinants of health and illness. Psychological pathogenic mechanisms. Psychosomatic disorders. Psychological aspects of pain. Functioning of an ill individual. Process of adaptation to illness. Doctor-patient relationship – difficulties in cooperation. Effects of education – skills and competences: communication and cooperation with a psychologist; recognition of patient’s psychological problems; establishment of an empathic contact; adjustment to own psychological predispositions and emotional limitations while performing the occupation of a physician; carrying on a conversation and patient history taking according to psychological criteria; exerting a beneficial effect of the psychological state of a patient; especially in stressful situations or in suffering due to psychosomatic disorders” [30].

In the above-complied educational contents and effects of education, a discrepancy is clearly observed between what is taught (contents) and what is expected after completion of the educational process (effects). The solutions are passed on mainly concerning the solving of traumatic situations (and this is right – a disease is a ‘loss’, and as such, disturbs human psychological functioning), and with respect to the results of education, apart from skills within the scope of clinical psychology, mental health prophylactic skills are expected.

Classes in the “sociology of medicine” (30 didactic hours during the entire course of physicians education) cover only rudimentary information in the area of professional interpersonal communication (elements of behaviour in health and illness). Anthropologic aspects (classes in “human philosophy”) did not find reflection in the curriculum, and classes in philosophy were limited to “medical ethics”, deontology.

Diagnostic survey

Tables 2 present the comparison of selected results of the diagnostic survey concerning professional communication competences of physicians and students of medicine in the area of motivation, knowledge and skills. The value of motivation, knowledge and skills indices, theoretically remain within the range from 0–1. In this case, the ‘motivation’ difference between physicians and students is not statistically significant. On the contrary, in the cases of ‘knowledge’ and ‘skills’, both indices are lower in the group of occupationally-active physicians than in the group of students, and that both differences are statistically significant (knowledge: $p=0.004$, skills: $p=0.011$).

Professional self-evaluation

Table 3 presents a comparison of the shortcomings in communication competences between the group of

Table 3. Comparisons of selected competences between physicians and students of medicine.

Evaluated competences	Results	Groups		Chi ²	p
		Physicians	Students of medicine		
acceptance of a patient	absent	167 90%	237 96%	6.628	.010
	present	18 10%	9 4%		
knowledge of assertiveness	absent	132 72%	210 85%	12.009	.001
	present	52 28%	36 15%		
knowledge of the role of feedback information in communication	absent	155 84%	230 93%	10.447	.001
	present	30 16%	16 7%		
tolerance of a patient and his/her significant others	absent	146 79%	164 67%	7.850	.005
	present	39 21%	82 33%		
skills of solving conflicts with patients and their significant others	absent	53 29%	106 43%	9.458	.002
	present	132 71%	140 57%		

occupationally-active physicians and group of medical students. The comparison showed that those shortages are significantly different between the compared groups with respect to the following competences:

- acceptance of a patient;
- knowledge of assertiveness;
- knowledge of the role of feedback information in communication;
- tolerance with respect to patients and their significant others;
- skills of solving conflicts with patients and their significant others.

Table 4 shows that the majority of proportions concerning the presence or lack of individual communication competences in both groups examined were statistically significant. Only in the case of ‘empathy’ and ‘knowledge of psychological defence mechanisms’ the proportion observed in the group of physicians did not statistically differ from the 50/50 proportion.

Table 2. Comparison of indices of communication skills in the observed groups.

Scope	Group	N	Mean	Mean difference	Standard deviation	Standard error	Minimum	Maximum	t	p
Motivation	Physicians	185	.4024	.00254	.10892	.00801	.20	.68	.265	.791
	Students of medicine	246	.3998		.08995	.00574	.16	.60		
	Total	431	.4009		.09843	.00474	.16	.68		
Knowledge	Physicians	185	.4727	-.03522	.15161	.01115	.02	.80	-2.874	.004
	Students of medicine	246	.5079		.10247	.00653	.02	.80		
	Total	431	.4928		.12697	.00612	.02	.80		
Skills	Physicians	185	.4850	-.02852	.13561	.00997	.08	.80	-2.551	.011
	Students of medicine	246	.5135		.09635	.00614	.13	.77		
	Total	431	.5013		.11558	.00557	.08	.80		

Table 4. Absence or presence of selected communication competences among physicians and students.

Evaluated competences	Results	Physicians			Students of medicine		
		N	%	p	N	%	p
acceptance of a patient	0 requires	167	.90	.000	237	.96	.000
	1 does not require	18	.10		9	.04	
knowledge of empathy	1 knows	106	.57	.056	94	.38	.000
	0 does not know	79	.43		152	.62	
knowledge of assertiveness	1 knows	52	.28	.000	210	.85	.000
	0 does not know	132	.72		36	.15	
knowledge of the role in communication of feedback information	1 knows	30	.16	.000	230	.93	.000
	0 does not know	155	.84		16	.07	
knowledge of psychological defence mechanisms	1 knows	98	.53	.462	100	.41	.004
	0 does not know	87	.47		146	.59	
knowledge of the role in communication of active listening	1 knows	34	.18	.000	206	.84	.000
	0 does not know	151	.82		40	.16	
knowledge of the phenomenon of resistance in communication	0 does not know	185	1.00	.000	246	1.00	.000
	0 does not know	0	0.00		0	0.00	
patient's comfort	0 does not know	157	.85	.000	208	.85	.000
	1 knows	28	.15		38	.15	
tolerance of a patient and his/her significant others	0 does not know	146	.79	.000	164	.67	.000
	1 knows	39	.21		82	.33	
responding to patient's needs	1 knows	68	.37	.000	84	.34	.000
	0 does not know	117	.63		162	.66	
skills of solving conflicts with patients and their significant others	1 knows	132	.71	.000	106	.43	.035
	0 does not know	53	.29		140	.57	
professionalism in the language	1 does not know	157	.85	.000	209	.85	.000
	0 knows	28	.15		37	.15	
needs in the area of communication knowledge	1 Yes	132	.71	.000	190	.77	.000
	0 No	53	.29		56	.23	
needs in the area of communication skills	1 Yes	136	.74	.000	195	.79	.000
	0 No	49	.26		51	.21	
interest in the scope of problems concerning communication	0 No	165	.89	.000	220	.89	.000
	1 Yes	20	.11		26	.11	

DISCUSSION

Analysis of the educational curricula for the students of faculties of medicine unequivocally indicated that the scope of education in the professional medical communication is very narrow. There is no subject (module, course) dedicated directly to these contents.

Didactics within professional communication skills is a great challenge. Undoubtedly, one of the methods is the method of educating through example – doctors possessing communication skills become tutors of the students (the only method practiced at Medical Universities in Poland). However, if they are not capable of analytically passing on, what their skills consist of, they become a type of a 'magician' in this respect. Their mastery is not converted in a conscious way into the students' skills [31].

This 'magic' is actually a set of well-improved skills which cover self-reflection – including the skill of managing own emotions, active listening, knowledge of psychological defence mechanisms, assertiveness, accurate empathy (not "co-sensing", but the understanding of patient's feelings), provision of feedback information, etc. [32].

In addition, in order to effectively teach students, the academic tutor should go beyond personal communication skills, so that from the meta-level, the tutor could indicate to the students specified principles and relationships present in relations with a patient. The teaching of communication competences also requires the skills of deconstruction of all elements of communication interaction, developing of a cognitive approach, as well as, non-linear perception of the reality [33].

Finally, the most important thing is the creation by the academic tutor of a 'safe' educational environment, bearing in mind that the environment of communication are emotions of doctor or student and patient. 'Safe' means the one which ensures the maintaining of secrecy of personal emotional reflections, entrusted during the classes to the group and to the tutor (here, the principle of maintaining medical secrecy is reiterated and trained) [34].

The results showing the general state of the respondents' communication competences in all aspects (motivation, skills, and knowledge) were relatively low. This clearly indicated an inadequate educational model (students), and lack of training in professional medical communication (doctors).

As many as 90% of the doctors in the study and 96% of the students of medicine showed, so-called, conditional acceptance towards a patient, i.e. 'I accept the patient, if he/she is ... clean and nice, carries out orders, etc.'. Conditional acceptance is evaluation of the patient, and testing if the patient fulfils our conditions. To accept a patient means practically to allow him/her to be as he/she is, with all which constitutes his/her equipment; this also concerns not only the patient's psychical mood, cheerful spirit, but also gloomy discouragement. Only on the ground of unconditional acceptance may develop appropriate professional communication [22].

Neglect in this respect limits the possibilities originating from good communication. Appropriate doctor-patient communication has high therapeutic potential. It may help in the emotional regulation of a patient, facilitate the understanding of medical information by a patient, and helps the doctor in the identification of a patient's demands, patient's perception of disease, and expectations with respect to the process of regaining health [35].

Simultaneously, the good preparation of the students of medicine and doctors for communicating with patients allows the overcoming of many barriers. Work with patients can bring about many unpleasant emotions (anxiety, fear of conflicts, verbal or physical attacks on the part of patients, patients' non-realistic expectations, and fear of mistakes). The skill to recognize these motions, name them, understand, and ultimately cope with own emotionality, is a part of the communication training [36].

Communication competences also protect students and doctors against dehumanization, which often results from technicalization of medicine, frequent experiencing of death, or even an insufficient amount of time devoted to a patient [37, 38].

Each patient is rooted in the social and cultural environment, exerting an effect on his/her attitude towards own health. Shortcomings in communication education very often result in the avoidance by doctors of conversations with patient concerning problems related with the environment, e.g. patient's family environment [39].

A large group of physicians, while they do not cope with the fulfilment of patients' expectations, discourage them from the verbalization of concerns or attitudes concerning own illness. That frequently results in therapeutic failure [40].

The state of communication competences, confirmed by the presented study, may find its justification in other studies, in which self-evaluation of communication competences by doctors was compiled with the evaluations reported by their patients. As much as 75% of orthopaedic surgeons considered that they satisfactorily communicated with their patients, whereas, at the same time, only 21% of the patients mentioned that the communication with doctors was satisfactory [41]. This over-estimated self-evaluation may be the source of disregarding educational needs in the area of communication, and simultaneously, may indicate a poor recognition of the relationships between difficulties in contacts with patients and the level of communication competences.

For counterbalance, it is noteworthy that there are studies which confirm the need, and sometimes the necessity, for improvement in the level of competences in the field of communication with a patient. Physicians, like other people, are not born with excellent communication skills; however,

they may possess many talents facilitating education in this area. Their communication skills can be provided exclusively by motivation, education and training, capability for change, as well as awareness of the need for constant training [42].

Each training in communication competences improves the doctor-patient relations. It should also be remembered that this type of skill expires in time, and therefore should be constantly up-dated [43, 44].

CONCLUSIONS

In the work of a physician, not only knowledge and professional (technical/hard) skills are important, but also psychosocial skills (relational/soft). The latter are divided into at least two aspects: competences in the area of interpersonal communication (doctor-patient relation), and group communication (e.g. skills of working in a medical team). The presented study indicates a relatively low effectiveness of educational effect of medical educational programmes in the area of soft (psycho-social) competences functioning at Medical Universities.

Medical professionals should be open to others and cope well in stressful situations. For this reason communicativeness is indispensable, i.e. the skill of constructing relations which lead to an effective, open and kind communication with patients and the medical staff. However, own studies indicate that under the effect of stressful situations in which the occupation of a doctor is abundant, the relation skills acquired during the studies are subject to regression. In their place there appear defence mechanisms which, in consequence, lead to withdrawal from appropriate contacts with others.

The method of evaluation of communication competences designed by the authors provides the possibility to diagnose educational needs of occupationally-active physicians in the area of professional interpersonal communication, and may be helpful in constructing group and individual educational programmes. The purposefulness of such instruments is confirmed by other studies indicating that the proper approach is to focus on specific communication skills, rather than a general or full suite of skills [25, 27, 28].

The presented results concern the current situation in Poland, where the official standards of the education of physicians places more emphasis on general and medical psychology than on professional communication training. One should be aware of the systemic and cultural differences which may considerably limit the scope of experience exchange in such a sphere so sensitive to cultural factors as interpersonal communication. However, it seems that despite international and cultural differences, if there is a lack of practical courses in intra-psycho training, the general psychological and communication knowledge imparted alone, may be used mainly for 'manipulating' patients and co-workers. This concerns doctors, nurses, as well as physical therapists [25, 27, 28].

In summing up, as the main postulates the researchers pose the following:

1. In the process of education of students of medicine, separate educational contents should be included in the field of professional communication competences (knowledge, motivation, skills).
2. Practical communication skills of the students of medicine should be based on the training of skills systemically

prepared and implemented, and not only on the basis of patterning relation attitudes of their older colleagues – medical practitioners.

3. There is a necessity to apply methods of evaluation of communication competences, diagnosing educational needs of occupationally-active physicians, which allows the preparation of courses in professional communication competences adequate to the needs, in the process of post-graduate education.

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