

## Communicative Competences in Professors and Health Professionals Education: an Exploratory Study

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Received date: September 29, 2015, Accepted date: October 28, 2015, Published date: November 05, 2015

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### Abstract

**Objective:** The aim was to verify students' opinion regarding communication competence in health education.

**Methods:** This is an exploratory study, with data collected by questionnaire applied to a sample of students from a University in Southern Brazil. Participants included 71 students of graduate schools in biomedicine, physiotherapy, speech therapy, and audiology and 54 students of postgraduate, master and doctoral degrees in health science. All students signed the informed consent document and answered a specific questionnaire developed for this study.

**Results:** Data were analyzed using content analysis, which is characterized by the observation of communications through objective and systematic procedures of message content description, and also by indicators that allow the assumption of knowledge about the inferred variables of these messages. From a total of 125 participants, 106 (84.8%) were women, with a mean age of 24.8 years (SD=0.41). 119 (95.2%) individuals considered the necessity of communication activities in academic education. Communication skills considered most important were "content expertise", "adequate speech rate" and "adequate speech articulation". The aspects of greatest difficulty were "adequate speech rate", "adequate speech articulation" and "interaction with the public". In addition, the participants reported the importance of communicative competence in oral presentations and conversations, and also the lack of these communication abilities in the academic and work environment.

**Conclusion:** Participants reported difficulties and lack of training in this area. This can be remedied with communicative competence activities at the University. Such interventions favor professional success, as the healthcare professional needs to maintain a good relationship with clients/patients, and also need to express themselves in meetings, public speaking activities, and scientific events. Therefore, communication is an essential skill in the health work process. It should be noted that convenience sampling is one of the study's limitation. This study can help students identify difficulties that may hinder their full educational process and the use of appropriate strategies to overcome these difficulties. Furthermore, the creation of validated and standardized scales to measure these communication skills become essential for the development of this field of study.

**Keywords:** Communication; Speech; Speech therapy; education; Competency-based education; Health; Verbal behavior; Nonverbal communication

### Introduction

In the communication process, voice and speech are basic elements of the transmission of ideas but other elements, such as verbal and nonverbal communication, are also fundamental to the credibility of speech [1,2]. The adequate use of these resources can be characterized as communicative competence. It can enhance the listener's interest, facilitate memorization and learning processes, and guarantee the reliability of the presented topic [3]. Adequate and appropriate voice production, articulation and speech rate, body and facial expressions, posture, proper use of equipment and visual aids, social skills and interaction with the public, language and vocabulary, and appropriate dress are emphasized [1,2,4-6].

Although the characteristics of communicative situations mentioned above are all important, only having the domain of verbal and non-verbal skills is not enough to develop adequate

communicative competence [2-5]. Communication means to share ideas and thoughts with other people. An individual, who has difficulties in listening and empathy skills, will also have difficulty in acquiring communicative competence [5]. Therefore, it is essential that the healthcare professional be able to associate empathy with communication skills during conversation or public speaking in order to influence the patient's motivation towards health care [5-9]. The proper use of these skills also provides interpersonal relationships with persuasion, reliability, and transmission of ideas in dialogue and in oratory argumentation [1,5,10-12].

In this context, adequate communication is fundamental for students, health professionals and future professors, aiming at successfully fulfilling their role as educators/communicators, seeking better relationships with patients/clients and work colleagues. And in addition, improving their educational qualifications and skills, including the communication process in academic, professional and social environments [13,14]. Professionals must act as a team, having to constantly express themselves in communicative environments. In addition, it is emphasized that communication has a fundamental role in the health process and in the adherence to treatment. It can be

concluded that professionals who have adequate communication skills when dealing with patients/clients, and also with healthcare team members, can enhance patients' adherence to treatments, in addition to obtaining greater cooperation and integration of the professional within a group [7-9,15].

It is common knowledge that professionals' communication difficulties are an important obstacle to teamwork [15]. In contrast, successful communication is a positive aspect in achieving professional success [5]. In this context, it is important that educational institutions follow the demands of the job market, leading to new forms of human relationships, developing new approaches in education for vocational training, which is necessary since the transition from academia to the job market generates expectations and difficulties in adapting by individuals. The desire for constant improvement is observed together with a high demand for labor and the level of quality required of entrants to the professional sphere [16].

The importance of developing research in this area must be emphasized, since several parameters related to communicative competence can be built on and improved, especially in the academic environment, giving assistance in the preparation and execution of educational and professional activities [2,12]. The aim of this study was to verify the opinion of graduate and postgraduate students of a Federal University about the use and implications of communicative competence courses and classes at the University.

## Methods

### Study design and sample

This is a descriptive and exploratory study. The sample included 125 participants; students at the Federal University of Rio Grande do Sul, in Porto Alegre, Brazil. Of the total, 71 were students of graduate schools in biomedicine, physiotherapy, speech therapy, and audiology, and 54 were students of postgraduate, Master and Doctoral degree in health sciences.

Only students undertaking educational practice and teaching in health education were informed of, and invited to participate in the present study. This discipline forms part of the university's compulsory curriculum, and it aims to provide technical instrumentation and critical reflection on health education, enabling students to understand the premises of educational practice, the assimilation of learning and work performance through the selection of important subjects and structuring and planning of occupational performance.

Students who agreed to participate and who signed the Informed Consent Form were included in the study answering a specific questionnaire developed for this purpose. The study excluded all those participants who, for some reason, did not complete the questionnaire and/or did not wish or were unable to complete it.

### The questionnaire

The procedure chosen for data collection was a structured questionnaire, adapted to the educational level of the participants. This instrument was developed by speech therapists participating in the University postgraduate Programs, supervised by speech therapy and pedagogy professors of the Institution. Questionnaires were completed individually in a silent and interruption-free location. There was no predetermined time for completion.

All participants were given guidance on filling in the questionnaire and once completed they were instructed to place them in a sealed box to guarantee confidentiality and the anonymity of those taking part. The examiner did not read the questions - each participant was required to read and answer each question individually. The procedure was always overseen by the same examiner to ensure uniform application. The questionnaire used in this study consisted of 11 questions: identification of the participants, assessment of communication skills and its importance in the educational process of students, and the student's self-evaluation of their communication difficulties and abilities. The questions included the following primary topics: a desire to follow academic careers, the necessity of including activities involving communication skills in graduate and/or postgraduate classes, previous experience in communication skills courses and classes and those aspects of oral presentation considered most important, such as voice production, posture, breathing, body and facial expression, subject, articulation and speech rate, language and vocabulary, use of equipment and visual aids, social skills and interaction with the public, and appropriate dress. Finally, the respondent should have indicated in which of these aspects he or she had greater difficulty.

### Data analysis

Data were analyzed using content analysis, which is characterized by the observation of communications through objective and systematic procedures of messages content description, and also by indicators that allow the inference of knowledge about the inferred variables of these messages [17]. Statistical analysis included descriptive statistics and by Fisher's exact and Chi-squared tests in comparison of communicative competences variables. The Mann Whitney and Kruskal-Wallis tests were used to compare communicative competences and sample variables. Normality was tested by the Kolmogorov-Smirnov test. The significance level was set at a maximum 5% ( $p \leq 0.05$ ) and the software used for statistical analysis was SPSS version 16.0.

## Results

It was observed that in the studied sample 106 (84.8%) participants were women, with no statistically significant differences between genders in graduate and postgraduate groups ( $p=0.561$ ). Total mean of age was 24.8 years ( $SD=0.412$ ), evincing statistical difference ( $p<0.001$ ) between mean of age in graduate participants, which was 23.1 years ( $SD=4.006$ ) and the postgraduate participants, which was 27 years ( $SD=4.395$ ).

Of the total participants of this study, 119 (95.2%) considered the implementation of communication activities in academic classes and educational institutions necessary. 66 (92.9%) were graduate students and 53 (98.1%) of postgraduate students ( $p=0.386$ ). 40 students (32%) reported conducting of complementary classes of speech and communication training in other institutions (other than in the University), 22 (31%) were graduate and 18 (33.3%) postgraduate ( $p=0.465$ ).

The chi-squared test indicated statistically significant results ( $p<0.001$ ) between the most important skills in oral presentations and conversations reported by students. These data for each separate communicative skill are described in Table 1.

Communicative Skills	Graduate		Postgraduate		Fisher's exact test P value	Total	
	n=71	%	n=54	%		n=125	%
Adequate voice quality	15	21	3	5.5	0.019*	18	14.4
Oral production without jargon or colloquialisms	20	28	22	40.7	0.181	42	33.6
Appropriate posture	39	55	24	44.4	0.281	63	50.4
Adequate speech articulation	45	63	35	64.8	1	80	64
Calm breathing	10	14	11	20.3	0.469	21	16.8
Adequate speech rate	47	66	32	59.2	0.458	79	63.2
Appropriate facial expression	6	8.4	4	7.4	1	10	8
Appropriate dress	11	15	3	5.5	0.094	14	11.2
Content expertise	63	89	47	87	0.788	110	88
Appropriate language and vocabulary	17	24	12	22.2	1	29	23.2
Resourcefulness and persuasive presentation	27	38	20	37	1	47	37.6
Appropriate body language	15	21	9	16.6	0.648	24	19.2
Proper use of equipment and visual aids	13	18	16	29.6	0.199	29	23.2
Interaction with public	38	54	29	53.7	1	67	53.6
Other	1	1.4	0	0	1	1	0.8

**Table 1:** Communicative skills considered most important by students. n: individuals number; %: individuals percentage; \*Statistical significance p<0.05

The Chi-squared test also indicated statistical significance (p<0.001), regarding the reported skills in oral presentation and conversations that caused the greatest difficulty. These data, for each communicative skill aspect self-reported by students are described in Table 2.

Communicative Skills	Graduate		Postgraduate		Fisher's exact test P value	Total	
	n=71	%	n=54	%		n=125	%
Adequate voice quality	0	0.00%	1.00%	1.80%	0.432	1	0.80%
Oral production without jargon or colloquialisms	4	5.60%	5.00%	9.20%	0.331	9	7.20%
Appropriate posture	2	2.81%	3.00%	5.50%	0.651	5	4.00%
Adequate speech articulation	17	23.90%	4.00%	7.40%	0.016*	21	16.80%
Calm breathing	4	5.60%	3.00%	5.50%	1	7	5.60%
Adequate speech rate	21	29.50%	20.00%	37.00%	0.25	41	32.80%
Appropriate facial expression	0	0.00%	0.00%	0.00%	-	0	0.00%
Appropriate dress	0	0.00%	0.00%	0.00%	-	0	0.00%
Content expertise	0	0.00%	2.00%	3.70%	0.185	2	1.60%
Appropriate language and vocabulary	1	1.40%	0.00%	0.00%	1	1	0.80%
Resourcefulness and persuasive presentation	9	12.60%	4.00%	7.40%	0.39	13	10.40%

Appropriate body language	0	0.00%	0.00%	0.00%	-	0	0.00%
Proper use of equipment and visual aids	1	1.40%	0.00%	0.00%	1	1	0.80%
Interaction with public	12	16.90%	12.00%	22.20%	0.497	24	19.20%
	0	0.00%	0.00%	0.00%	-	0	0.00%
	71	100%	54.00%	100%		125	100%

**Table 2:** Communicative skills considered most difficult by students. n: individuals number; %: individuals percentage; \*Statistical significance p<0.05

## Discussion

The studies with the objective of proposing methodological basis for monitoring the progression of the communicative competence of the student, as in the study of Braga and Silva (2006) [18], assist in the improvement of professional and teacher training of students, because those who use appropriate communication are more accepted by society. The University which recognizes these demands will help the transition of students from academia to the professional environment, making them more expansive and communicative, giving them the resources to enable them to express themselves in conversations, and in activities of public speaking, showing expertise and professional competence [2,5].

The participants of this study reported the importance of communicative competence in oral presentations and conversations, and also the lack of these communication abilities in the academic and work environment. It is accepted that many communication abilities can be developed and enhanced with communicative interventions [2]. In this context, higher education must invest in programs to recognize a university student's profile. It should aim to plan assistance related to the demands of students and promote effective conditions for a successful work performance by the individual in the future [19]. The relevance of these communicative and educational activities in health and other sciences, whose occupational success depends on the quality of relationships established between professional-client and within a team must be emphasized [4,20,21], because the professional with appropriate communication skills, has better integration skills, demonstrating assertiveness and competence, strengthening links in the occupational environment and affecting the process of adherence to treatment [2,5-9,15].

Among the aspects reported by students as important for competent verbal and nonverbal communication, the most frequently highlighted were: "content domain", "adequate speech rate" and "speech articulation". The student's preference for the content domain aspect is justified because communicative competence depends primarily on the theoretical basis of the above issue. It can arouse the interest and reliability of the listener, facilitate the process of learning, and also promote interaction with the public [2,5,22]. Regarding the skills related to speech production, a study [23] describes data that are in accordance with the findings of this study, showing that speech rate and articulation are the most important aspects connected to communicative competence. However, these authors also describe the gaps in literature in this field. It is noted that these communication skills are often developed and improved in the speech therapy clinical practice. It is possible to improve speech rate and articulation with preventive and educational activities in schools, universities, and in students' training centers.

Difficulties reported by the study participants included "adequate speech rate", "adequate speech articulation", and "interaction with public". The communication skills related to speech production are the same ones that students consider important, as mentioned in the paragraph above. These skills are closely related to the intelligibility of speech, which can impair the understanding of the message [2,5]. When the speaker is a healthcare professional, this can interfere in communication between health team members, and also interfere in patients' understanding of their health status and established treatment [8,9,15]. As for the social ability to interact with the public self-reported by students in this study sample, it was noted that the development of social skills in childhood, is an important key to preventing the occurrence of anti-social behavior and possible future consequences [24]. These authors also point out that there is a relationship between social skills and adaptive behavior such as adequate academic performance and coping strategies in the face of stressful situations. This fact highlights the importance of social skills, such as interaction with the public during oral presentations and in the personal and professional activities of an individual. The importance of programs that promote the learning of healthy social skills in children and adolescents are, therefore, noteworthy [25].

Finally, there are gaps in literature regarding studies that investigate the communication skills of health professionals and in teachers' education. According to a study in this field [14] there is a theoretical and practical distance between language/communication and teachers' training, which does not seem to favor the synapses between communication and skills developed through existing areas of knowledge. For this reason, despite the acknowledged importance that communication has in the pedagogical discourse, it has been studied and addressed by few reflective practices. It has also highlighted the lack of studies investigating communicative competence and the expressiveness of the teacher and of the health science students. There is also a lack of studies that investigate the communicative competence of health professionals with their patients, especially children [26]. However, Speech Therapy is currently expanding its actions and procedures into educational fields, due to the importance of this topic for educational planning and for the occupational success of teachers and health professionals.

## Conclusion

The main contribution of the present study is the identification of primary communication difficulties involved in oral presentations and conversations, and the necessity of more interventions related to communication abilities in order to improve the professional education of graduate and postgraduate students of health sciences. It has highlighted the importance of recognition of factors that can

impact on the students' psychological and social aspects that can interfere in their occupational performance. and emphasizes that the importance of communicative competence in health work not only affects the individual's professional success, but also their performance of daily occupational activities, their involvement with patients/clients and other work team members. In this sense, communication difficulties may cause impairments in learning processes and in health treatments offered.

With regard to the limitations of this study, the convenience sample and the non-standardized questionnaire for collecting data on communication skills of the individuals included in this study, should be emphasized. There is a necessity for more studies that present debate and the importance of development of communication activities and social skills programs in the University, and also speech and voice training. It can help students to identify difficulties that may hinder their full educational process and the use of appropriate strategies to overcome these difficulties. Furthermore, the creation of validated and standardized scales to measure these communication skills becomes essential for the development of this field of study.

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