

Communication in health care from the experiences of Nursing students and teachers: contributions to health literacy

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Abstract *The object of this study is communication about health in the training processes of nurses and the aim is to analyze the conceptions of teachers and students of an undergraduate nursing course about communication in regard to health based on the construct of health literacy. This is a descriptive, exploratory research, with a qualitative approach. Data were collected through individual narratives of students and semi-structured interviews with teachers at a public university. Data were analysed through inductive coding, supported by the Atlas T.I software, version 8.0 and using the theoretical framework of Health Literacy. The results identified two categories supported by the testimonies of students and teachers: 1) Communication in nursing care and health literacy; 2) Practice in communication skills during graduation. Students and teachers recognized the importance of communication and the relational process with patients in the classroom context. The need for practical and reflective tools is identified so that communication is experienced in a more dialogic and participatory manner, both with patients and in teaching-learning contexts, with the integration of affective, motivational and supportive elements.*

Key words *Communication, Nursing students, Teachers, University professor, Health literacy*

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Introduction

Communication constitutes one of the main bases of nursing care, as it involves interpersonal relationships, speech, facial expressions and sense perception, all of which express care. Therefore, it is a skill to be developed by undergraduates in the area so that the nursing systematization is carried out in an effective and humane way¹.

Health literacy (HL) has been conceptualized from a functional and interactive perspective. As a functional concept, it is approached as the basic and individual skills to read, write and understand health-related issues. The interactive perspective is much broader and is associated with adequate access, understanding and the ability to access accurate information. Interactive health literacy refers to the ability to combine cognitive, social and functional skills to extract information and use that information for health care. Important dimensions in this field involve a sense of understanding and support from health professionals, as well as effective interaction and proper coordination of health systems².

The critical health literacy (HL) model proposed by Sorensen *et al.* (2012) is a strategy to strengthen an individual's knowledge and motivation to access, understand, assess and apply health information in order to make judgments and decisions in daily life in relation to their own health³. These four HL skills/competencies need to be understood by students, teachers and nursing professionals during the training process, considering that it is the mission of educational institutions to strengthen the health literacy of future health professionals, so that they may be able to understand and act on the challenges people face when trying to find, understand and use health services³.

Facilitating mechanisms for teaching-learning communication during nursing education, as well as its assessment and monitoring, should be intentionally proposed in the curriculum and developed by the teachers. These, in turn, through their posture and teaching-learning relationship, can contribute to the development of this skill in students, from simpler to more complex configurations. For this, the teacher needs to assume the role of advisor and show clarity of communication skills to be stimulated and mastered by students¹⁻⁴.

Throughout the training process of the nursing student, different contexts and factors that can affect professional practice should be considered, by valuing the relationships between profes-

sionals and patients and their families, based on concrete and accurate information, empathy and tools that enable improved decision-making by patients, helped by their support network and by the health professionals who assist them⁵.

During graduation, strategies such as classes with a theoretical and practical focus, aimed at developing the communicative competence of nursing students, enable the learning of concepts and skills to improve the communication of nursing professionals with family members of clients⁶.

From the perspective of valuing communication in health and its articulation with the assumptions of HL, this research aimed to analyze the conceptions of teachers and students of the undergraduate nursing course about communication in health in light of the construct of Health Literacy. To answer this question, the following guiding question was asked: What are the conceptions of undergraduate nursing teachers and students about communication skills and how are these conceptions linked to the construct of Health Literacy in the education of nurses?

Methods

This is an exploratory research, using a qualitative approach, carried out in a public Higher Education Institution in the state of Pernambuco, Brazil. Study participants were regularly enrolled nursing students, from the 1st to the 9th period, and permanent teachers of the nursing course at that institution.

As inclusion criteria for students, they should be regularly enrolled, from the 1st to the 9th period of the course. Students who had dropped out due to personal problems were excluded. As for the inclusion criteria for teachers, they should be permanent teachers of the course.

Two data collection techniques were used, a form/questionnaire was made available to the nursing students and interviews were carried out with the teachers following a semi-structured script. Students were approached through an invitation in the classroom, with the consent of the teachers, by two undergraduate nursing students, who received theoretical and practical training on qualitative health research, tutored by an advisor, who was experienced in the chosen approach.

After acceptance by the students, they were invited to produce individual narratives based on guiding questions about communication during training. The questions addressed communication in general, communication with patients

and classroom communication in the teacher-student relationship. The narrative data were collected throughout 2017.

Uncontacted students were also approached and invited during class breaks to participate. Narratives are described as a methodology in which the participant can contribute from their lived experiences about the topic, narratives are characterized by reports of more contextualized events. The instrument was applied through self-directed application⁷.

For the teachers, an interview with a semi-structured script with open questions was used. The teachers were invited during meetings by the Project's supervisor and were later invited by the undergraduate students to define the best day and time for the interview to be held. The interviews were carried out in the work environment, in a private room, usually in the teacher's room, throughout 2018.

The number of respondents was based on the data saturation criterion⁸. The interviews lasted an average of 15 minutes. The interviews were recorded and immediately transcribed and later, the data from the students' narratives and the semi-structured interviews were compiled for coding using the Atlas T.I Software, version 8.0.

To perform data analysis, the theoretical framework of Yin was used. Data analysis was performed in five steps⁹. In the first stage, the data were compiled in order to have an order, characterizing this as a database. The second step consisted of decomposing the data into fragments and smaller elements, which were named with descriptive codes, close to the text. The third step was recomposition, a phase in which the smaller fragments were regrouped into thematic categories based on their codes. The fourth stage consisted of data interpretation, when the recomposed data were used to create new narratives that became part of the analysis. The fifth and final stage was the conclusion, whose content came from the interpretation of data and other stages of the cycle, articulating the reference of health literacy.

The research was approved by the Ethics Committee for Research Involving Human Beings (CEP) of the Health Sciences Center (CCS) of the Federal University of Pernambuco (UFPE), ruling n°: 815.383, meeting the requirements of Resolution 466/12 and its complementary resolutions. The formal consent of the participants was requested by signing the Informed Consent Form (FICF). This article was proposed from the publication of the study in the annals of the

10th Ibero-American Congress on Qualitative Research in July 2021, from the recognition of the best works, in which the work "Communication in health care: conceptions and experiences of Nursing students and teachers" was published and presented.

The results presented in this manuscript constitute other data not presented in the previous work.

To maintain the anonymity of the participants, codes formed by a sequence of letters and numbers were used. The initial letters correspond to the professional category of each participant. The letters are followed by cardinal numerals that identify the order of participation of the respondent in the survey. Following the coding sequence, a second order of letters was used, E for student and D for teacher.

Results

Narrative data from 131 students were collected, distributed among the 1st to the 9th periods, and there were an additional ten interviews with teachers. In the group of participating students, 121 were female and ten were male. The age range of this group ranged from 17 to 37 years. Among the teachers, nine were female and one male. In this group, the age ranged between 27 and 67 years. From the qualitative analysis of the responses from students and teachers, the following thematic categories were developed and explored from the main sub-themes that emerged from the statements by students and teachers.

The first, category 1, comprises the analytical codes related to communication in nursing care and the dimensions related to health literacy (Chart 1).

Category 2, in turn, comprises the codes related to communication in the context of training, addressing learning in the classroom and in the context of health services (Chart 2).

The results highlight the recognition of communication in the context of nursing work by students and teachers, relating it mainly to two dimensions of health literacy, access and understanding of patients, based on assumptions of participation and dialogue in the communicative relationship, such as the participation and empowerment of patients in decision-making related to technical procedures and information related to health promotion and care. Aspects such as empathy in relationships, the patient's rights and the relevance of teamwork were also valued. To a

lesser extent, the articulation of communication with the dimensions of evaluation and application of knowledge stands out.

During training, students and teachers recognized interactions in the classroom and in health services as opportunities to exercise communica-

Chart 1. Communication in nursing care and health literacy. Recife, Brazil, 2021.

Dimensions of health literacy	Subtheme	Students	Teaching staff
Access understanding	Horizontal relationship without distinctions	E5: Good communication is something necessary to understand the other's opinions and needs [...] in an egalitarian way, without demeaning or humiliating someone, due to social class or knowledge E15: Respect for opposing opinions	D5: I think you should always take into account that you have knowledge and that you have wisdom. We have to take into account that my client has knowledge and I have to take it into consideration
Access understanding	Multiple forms Clarity and objectivity	R14: Clarity, objectivity and attention are essential factors for communication, because they guarantee a good flow of information R16: Speech, images, sounds, having a reciprocity between people	D10: I think it's important for us to leave the classroom environment, I think it's very important that whoever gives that class looks at the practical so you make this connection, so you don't train a nurse who doesn't know how to express himself, who doesn't know how to talk to the client [...] So I think this is important, it is our responsibility to awaken this in the student
Access understanding	Empathy	R44: Theoretical knowledge; empathy; put yourself in the other's shoes R9: we can understand the other, what someone wants to share, let off steam and through communication we can establish relationships R10: Communication is extremely important [...] which will help the patient, the family and the work environment	
Access understanding	Knowledge of patient's needs Team work	E22: Knowing what is happening with the patient, to understand their social context, to discover the causes of an illness, for example. And to have a unified team	D9: [...] when we are at the basic unit, we ask them to do a have a discussion with patients, with caregivers, that they can also do training with community health agents, with other professionals, that they participate in trainings

tion, supported by participatory methodologies and the role of the teacher as a mediator of relationships with students.

This interpersonal relationship existing between the teacher-student dyad in the context of

learning in the university space is marked by the diversity of people and their constant communication during teaching-learning activities which contribute to the exercise, maintenance and improvement of communication. When teaching

Chart 1. Communication in nursing care and health literacy. Recife, Brazil, 2021.

Dimensions of health literacy	Subtheme	Students	Teaching staff
Access understanding	Involve patients in decision making	E59: Engage with patients, so they know what will be done	D7: [...] if you are not understood by the patient, they do not understand the therapeutic process, so for you to take care of someone, they need to understand what you are proposing as care. This enters into therapeutic communication as well
Access understanding	Patient autonomy educational processes	R16: Through communication, we can keep the patient informed of everything we are going to do, in addition to being able to maintain a dialogue with them and even promote health education for both the patient and the family R85: [...] Vulnerable people need this communication to initiate treatments, follow recommendations, listen and practice health education and general instructions	D1: Understanding that we have to understand the limitations of communication in relation to others, such as in regard to the elderly, those who have hearing problems, who have decreased hearing acuity, and visual limitations
Access understanding	Professional response to patient's needs and feelings	E23: With communication, it is possible to better understand what the patient feels, their anguish and problems in order to help them in the best way possible I13: Because care does not only involve technical procedures, it also involves words of comfort. Therefore, communication in the act of caring is of great importance	
Access understanding evaluation	Patient satisfaction	E53: Care skills are optimized, the client is satisfied and the professional also feels fulfilled in the care process	
Evaluation Application	Better patient adherence	E 65: Improvement in the patient-professional relationship, greater possibility of success in the treatment, increase in the patient-professional bond. Greater therapeutic adherence	

Source: Authors.

classes, interacting and decoding content, teachers make knowledge accessible for contextual use.

It is necessary to reflect that, communicating with others in the professional practice or during professional training to produce a better understanding, implementation and evaluation of the HL of patients and of themselves, it is essential to reflect on the personal skills of each student and teacher. Therefore, in order to think about the care of the other, it is necessary to reflect on the basis of self-care.

Discussion

Communication, as a tool of nursing work, was valued by students and teachers based on the concept of multiple approaches, including oral, written communication and non-verbal dimensions. Nursing, at its core, offers care as its main object of work. In their routine, the nursing professional needs to establish multiple interpersonal relationships with the multidisciplinary health team and users of health services. For this, the nurse uses communication as a tool to establish these relationships.

Communication between the nursing professional and the patient is considered one of the most important clinical methods and constitutes

Chart 2. Practice in communication skills during graduation. Recife, Brazil, 2021.

Subtema	Discentes	Docentes
Learning in the relationship with patients	E24: [...] through learning, we are always putting our knowledge into practice and learn to communicate with both patients and professionals E70 [...] we are able to apply questionnaires (interviews) with patients, establishing oral communication, and enabling us to provide collective assistance with other professionals	D3: Lá na consulta com a criança, lá no atendimento da criança que tá doente, você demonstra como docente como é a comunicação, e fala por. Então, a comunicação, o aluno eu acho que ele aprende olhando como o docente se comunica, e o professor tem o papel fundamental para dizer ao aluno: “Esse tipo de abordagem não é adequado.”
Continuous classroom learning	E 27: Yes. In that we are constantly dealing with seminars, the internships, even without realizing it, we deal with communication	D4: [...] I have been trying to work in this sense [...] even those students who for some reason have a somewhat apathetic behavior, I try to get closer [...] if there is something outside of the context that is interfering in this relationship of learning D8: Knowledge, practical mastery, because as a nurse you need to exemplify what he sees in theory with what he will develop in his practice, so mastery, my practical skills, my experience within health services are also interesting, the report of cases with the patient, I add a lot of video tools, that's not to say, that it's interesting, combined with the theme, I think this is very important, and I also really like to open it up to the student, right, this exchange [...] because he thinks it is another way and from this we can build something
Limitations of the health professional to communicate and need for support		D3: So, communication limits will always exist, and the undergraduate should learn from us that they have limitations, and that they have the right to say “I can't communicate, therefore I can't care”

Source: Authors.

the basis of nursing care^{1,10}. This dimension of communication as an aspect that relates to the work of nurses within the health team was envisioned by both students and teachers.

Another dimension involved in the communicative act, present in the testimonies of both students and teachers, was the possibility of establishing relationships of exchange and dialogue. Communication in health requires, for its effectiveness, knowledge of specific values and beliefs of the patient's culture. This happens through the cultural adaptation of the health professional to the cultural specificities of the user of health services. From this approach to the user's reality, the health professional will be aware of which values can condition health behavior, and more specifically which values facilitate this behavior and which make it difficult¹¹.

Communication in nursing care and health literacy described through the reports of students and teachers allows us to identify the dimensions of "access" and "understanding" in the reflections on the importance of clear, objective, horizontal communication, so that the professional is a mediator, who respects the patients' needs and feelings and facilitates aspects such as respect for patients' rights and conscious decision-making in the face of invasive procedures. Another valued aspect was the importance of teamwork for patient-centered care.

Researchers in the field of health literacy, including Osborne (2013), emphasize the importance of bidirectional communication and advocate the use of participatory and dialogic methods, which favor better communication between professionals and patients, with a view to improving the level of HL of the public who use health services^{12,13}.

Although the dimensions "assessment" and "application" of health information by patients were found in the comments by students, they appear more secondary, as a result of communication in health.

This data can be related to the understanding of the relevance of communication in health by students, but there is a lack of evaluative feedback and reflective processes during the teaching-learning process, so that communication can be worked on in a more conscious way with strategies that would help to achieve results aimed at patients' health literacy. Thus, participants mention the need to improve interaction/communication between professionals and patients during the care process. This presupposes that these dimensions, when understood, can promote great-

er adherence and patient satisfaction with the treatment.

Although the concept of health literacy was not questioned by the participants, it is possible to verify their understanding of the autonomy and value of patients' knowledge during health education processes.

A study that addresses the health literacy of bachelor and graduate students in health courses (medicine, medical informatics, molecular medicine and biomedicine) in Denmark, points out that some socio-demographic variables were related to the dimensions assessed by the Health Literacy Questionnaire (HLQ), an instrument that assesses health literacy in a multidimensional way. Students who were admitted to a hospital scored higher in domains 1 (feeling understood and supported by health professionals), 5 (evaluation of health information), 6 (ability to actively engage with health professionals) and 8 (ability to find good health information)³.

HL affects health equity and outcomes through four main causal pathways: access to and utilization of health care; interaction with health services; care for oneself and the health of others, and participation in debates and decision-making¹⁴.

These aspects seem to relate to patients' personal experiences in aspects that can influence health literacy in dimensions focused on affective and relational aspects, and this is relevant to provide students with reflective encounters regarding their interactions with users of health services.

For the World Health Organization (WHO), the concept of HL consists of the "capacity to obtain, process and understand health information, in order to make appropriate decisions for self-care management", and has emerged as a construct that can mediate educational activities in health services¹⁵⁻¹⁶. Thus, studies have shown that HL can be a stronger predictor of general health outcomes than race, age, education and socioeconomic status^{17,18}.

Thus, using health communication strategies with HL can benefit, in the short, medium and long term, health education actions for the population in all aspects of society, especially during the training processes of health professionals. The promotion of HL among people, communities and organizations, constitutes an important opportunity and challenge for public health¹⁹.

The US Institute of Medicine (now the National Academies of Science, Engineering, and Medicine) recommends that "professional schools

and continuing professional education programs in health and related fields, including medicine, dentistry, pharmacy, social work, tropology, nursing, public health and journalism, should incorporate Health Literacy in their curricula and areas of competence²⁰. According to the US Department of Health and Human Services, 2010, improving the level of HL of health professionals through training is an important part in making the health system increasingly patient-centric, it is a central component of the National Plan of Action to Improve Health Literacy in the United States²¹.

Although there are a variety of approaches and curricula being used for teaching health professionals in a country like the USA about HL and clear communication, many professionals still do not receive formal training in this area when providing health services²¹. In Brazil, Health Literacy is still little explored in the context of health practices and management. There are no national data estimating the condition of HL in the Brazilian population or even public health policies on this topic²².

The practical skills of communication during training were recognized both in classroom experiences, such as in seminars and group work, as well as in experiences and contact with patients. The teacher-student relationship was also recognized by both segments as an important interaction that promotes the learning of communication, for the future performance of nurses.

In an intervention study with nursing students, based on the Clinical Simulation strategy, students developed better communication and better decision-making skills in relation to a controlled learning environment²³.

In order to create a favorable clinical environment for the nursing student to have positive learning, it is necessary that the student-teacher relationship is also positive. The teacher's attitudes towards students influence the development of professional skills, socialization and confidence. Therefore, the teacher impacts the development of the student's communicative skills, as well as their psychomotor skills^{1,4-6}.

As with other nuances, the teacher-student relationship is subject to the interculturalities often experienced during graduation. Demonstration of empathy on the part of the teacher can enhance the students' learning experience. However, in cases where empathy is not accompanied by criticism, this can hinder the student's learning in their skills as a future nurse⁶.

One of the teachers also recognized the importance of the professional's limitations and

weaknesses, whether as a nurse or as a teacher, and that they should be shared to favor mutual support.

The absence of statements about the use of communication for self-care and the repercussions that this fact has on the HL process of these professionals in training and of teacher trainers, raises concerns about the capacity for self-care and the role of higher education in this context, either during the training of the undergraduate or of the teacher.

Although the training process for nurses has as its guiding principles actions of empathy and alterity, highlighting the importance of the other in the care relationship, and that these aspects are always frequent in the reports of teachers and students, it is noted that the absence of statements about the personal role that each one exerts over themselves and their own health status can also be considered a limiting factor for HL.

The need to develop in professional training the reflection of HL assumptions is evident, in order to improve the skills that support the early identification and resolution of problems generated by inadequate HL, thus, it is necessary to think about the communicative act in a shared context, between the professional-patient, teacher-student or professional-professional dyads²⁴.

These different encounters generate different contextual possibilities for thinking about HL. In the care context, nurses should seek to identify early risk factors that involve the patient and affect their ability to use information to maintain the patient's health, with a view to improving them.

On the other hand, the teacher and the student must observe the effectiveness of their practices and actions (including the communicative act) for the achievement/improvement of their clients' health literacy, and this self-reflection must exist in different educational contexts, graduation (professional training) and in the *lato sensu* postgraduate course (specialist training), from the perspective of optimizing HL for specific audiences, aware of the individualities that arise in the course of human development and, while in the *stricto sensu* postgraduate course (masters and doctorate), pay attention to learning-teaching HL, including the theme as a basis for teacher training in the health area.

The HL of the professionals themselves is also indicated, referring to self-care, thus, as self-care is ineffective, it is characterized as a personal limitation that can interfere in the actions of caring for the other²⁴.

Final considerations

From the perspectives of students and teachers, it was found that both recognize communication and its importance in the relational process with patients, through interactions with users of health services, the family and the health team, and in teaching-learning, with the teacher-student relationship. However, even though they know about the relevance of competence in these contexts, communication is still a theme centered on the health professional, although elements that contribute to the empowerment and active participation of patients are highlighted, being key aspects that favor health literacy.

Despite being aware of the existence of non-verbal communication in the communicative process, both teachers and students did not demonstrate knowledge of the deeper levels that this communication presents, nor its consequences. Although communication is understood as relevant to human relationships, to the work process of nurses in their relationship with patients and with other members of the health team, there is still a need for practical and reflective tools so that communication can be more intentional, with reflections and possibilities of change in the studied reality.

Student empowerment is necessary for practices that promote greater dialogue with patients, with greater focus on aspects such as voice, touch and other non-verbal signals that decisively contribute to communication as a fundamental skill for nurses in the context of education and scenarios of care.

Communication in health associated with the construct of Health Literacy can be better addressed during training and its results can be measured in the reality of health professionals, through the relationship with patients.

From a qualitative approach, using different data collection techniques (semi-structured and narrative interviews), this study achieves the objective of analyzing the experiences of nursing undergraduate teachers and students about communication in health, offering relevant support for its procedural articulation in favoring critical health literacy.

One of the limitations to be highlighted was the impossibility of adding the technique of non-participant observation, which could add additional elements for a better understanding of the phenomenon.

Collaborations

AKF Soares was responsible for the design, planning, data collection, analysis and writing of the text, CHC Sá was responsible for the analysis and writing of the text, R Lima was responsible for the analysis and writing of the text, MS Barros was responsible for the analysis and writing of the text, MWL Coriolano-Marinus was responsible for the guidance of the research process, conception, planning, data collection, analysis and writing of the text.

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