Revista de Comunicación y Salud, 2025, No. 15, 1-18.
Editado por Cátedra de Comunicación y Salud
ISSN: 2173-1675

Received 13/09/2024
Accepted 19/10/2024
Published 25/11/2024

STUDY OF COMMUNICATION EXCHANGES IN HOSPITAL ASSISTANCE THROUGH MEDICAL STUDENTS

ESTUDIO CUALITATIVO DE LOS INTERCAMBIOS COMUNICATIVOS EN LA ASISTENCIA SANITARIA HOSPITALARIA A TRAVÉS DE LOS ESTUDIANTES DEL GRADO DE MEDICINA

Diego Matos Agudo[1]: University Health Care Center of Salamanca. Biomedical Research Institute of Salamanca (IBSAL). Spain.
dmatosa@saludcastillayleon.es

Francisco Javier Rubio Gil: University Health Care Center of Salamanca. Biomedical Research Institute of Salamanca (IBSAL). Spain.
fjrubio@saludcastillayleon.es

Enrique Nieto Manibardo: University Health Care Center of Salamanca. Biomedical Research Institute of Salamanca (IBSAL). Spain.
enietoma@saludcastillayleon.es

Pablo Rey García: Pontifical University of Salamanca Universidad. Biomedical Research Institute of Salamanca (IBSAL). Spain.
preyga@upsa.es

José Carlos Gómez Sánchez: University Health Care Center of Salamanca. Biomedical Research Institute of Salamanca (IBSAL). Spain.
jcgomez@saludcastillayleon.es

Funding. *This article was written within the framework of the research project in Health Management and Social and Health Care of the Institute of Biomedical Research of Salamanca (IBSAL) with code IBYG22/00001.*

[1] **Diego Matos Agudo**: Journalist, PhD in Communication, M.A. in Business and Institutional Communication Management and university professor. He is currently the director of Communication of the University Health Care Center of Salamanca and head of the research group "Communication and Health" of the Institute of Biomedical Research of Salamanca.

How to cite the article:

Matos Agudo, Diego; Rubio Gil, Francisco Javier; Nieto Manibardo, Enrique; Rey García, Pablo & Gómez Sánchez, José Carlos (2025). Study of communication exchanges in hospital assistance through medical students [Estudio cualitativo de los intercambios comunicativos en la asistencia sanitaria hospitalaria a través de los estudiantes del grado de Medicina]. *Revista de Comunicación y Salud*, 15, 1-18. https://doi.org/10.35669/rcys.2025.15.e373

Abstract

Introduction: Communication is key in healthcare systems. This study had the objectives of training medical students in communication and, at the same time, understanding how communication was being carried out at a clinical and interpersonal level in our hospital. **Methodology**: A teaching activity was proposed to medical students. They were offered to observe communication skills while attending their clinical rotation. First there was an initial session in which the main elements of communication in healthcare systems were reviewed. They were asked to complete an empathy survey and received different tools for collecting observations including a 16-option form specifically developed, which they could use to assemble observations in a more closed and anonymous format. A qualitative analysis of the observations raised in the focus group was planned, as well as a quantitative analysis of the answers made through the online survey. **Results and discussion**: The main result observed is that a specific training action in students can be useful both for their learning about communication and, in addition, for knowing the reality of these skills in a particular center. The particularities of patients and healthcare providers mean that each care process has its own uniqueness and needs to be approached in different ways. **Conclusions**: Rotation of students through clinical services generates many training opportunities. Immersing in real care allows them to exercise clinical reasoning, relate and apply theoretical knowledge. But it is also the forum where they can soak up transversal skills that make the most off professionalism, such as empathy, compassion, and all the emotional skills necessary for communication.

Keywords:

communication in healthcare, active listening, communication skills, compassion, empathy, healthcare assistance.

Resumen

Introducción. Las habilidades comunicativas son herramientas clave para los profesionales de la salud. Con este estudio se pretende conocer cómo se está comunicando a nivel clínico e interpersonal en el complejo asistencial salmantino. **Metodología.** Se planteó la realización de una acción docente durante un periodo de cuatro semanas entre los alumnos de Medicina. En la sesión inicial se revisaron los principales elementos de las habilidades comunicativas en los sistemas de salud. Además, se distribuyó la encuesta de empatía. Se desarrolló también un formulario específico de 16 opciones, que podía usarse para recoger observaciones con un formato más cerrado y anónimo. Se planificó un análisis cualitativo de las observaciones planteadas en el grupo focal, así como un análisis cuantitativo de las observaciones realizadas a través de la encuesta *on-*

line. **Resultados y discusión.** El principal resultado observado es que una acción formativa específica en los estudiantes puede valer a un tiempo para su aprendizaje en habilidades comunicativas y, además, para aproximarse a la realidad de estas en un centro asistencial. Las particularidades de pacientes y sanitarios hacen que cada proceso asistencial tenga una singularidad propia y que necesiten ser abordados de maneras diferentes. **Conclusiones.** La rotación de los estudiantes por los servicios clínicos genera muchas oportunidades formativas. Sumergirse en la asistencia real permite ejercitar el razonamiento clínico, conectar, relacionar y aplicar el conocimiento teórico. Pero es, además, el foro donde empaparse de todas esas habilidades transversales que conforman su faceta profesional, tales como la empatía, la compasión… y todas las habilidades emocionales para la comunicación.

Palabras clave:
comunicación en salud; empatía; compasión; comprensión; escucha activa; habilidades comunicativas; actividad asistencial.

1. INTRODUCTION

Communication skills are key tools for healthcare professionals. These skills are understood as the set of linguistic processes that are developed throughout life, in order to participate effectively in all spheres of human communication. Verbal and non-verbal language; active listening; persuasion; emotional coherence; empathy; the ability to improvise... are some of the most important communication skills.

Good communication is not only positively related to greater patient satisfaction, but also to better health outcomes. Among the general competencies that medical students have to achieve throughout their undergraduate training is the ability to communicate (understood as a set of the previous ones; as a whole). Communication is a key factor in facilitating the disease detection process and improving the quality of life of patients (Barrientos-Báez et al., 2020; Carretero-Díaz et al., 2022; Fondevila-Gascón et al., 2024).

Clinical rotations generates many training opportunities. Immersing themselves in real clinical care allows them to exercise clinical reasoning, connect, relate and apply theoretical knowledge. But it is also the opportunity to soak up all those multidisciplinary skills that make up their professional career, such as empathy, compassion... and all the emotional skills for communication.

Encouraging students to focus their attention, expressly and systematically, on how tutors communicate with patients and other health professionals is a great opportunity. In the field, the qualitative observation that students can make about the communicative models (supported with semi-structured evaluation models) that are used will be useful for learning and improvement. In addition, a portrait of the communication that takes place in the University Health Care Center of Salamanca (CAUSA) is obtained while seeking an empathetic relationship.

Empathy is a key element and is defined as the ability to understand the feelings and emotions of others, based on the recognition of the other as a similar or identical person. Applied to the doctor-patient relationship, it can improve clinical outcomes and is therefore considered an essential skill in the training of all medical professionals. Being part of this innovative teaching activity can influence the empathy levels of the participants; at the same time, participation in it may be due to higher levels of empathy that facilitate their involvement in this activity.

The aim of the project described in this article is to find out how clinical and interpersonal communication is taking place in the Salamanca health care center in order to motivate and involve all physicians in the construction of a climate of trust in the hospital and to promote internal cohesion and performance. This is a search for communication that is effective and affective; always centered on the patient.

2. COMMUNICATION AND HEALTH: A SYMBIOTIC RELATIONSHIP

Health-related communication is a relevant and fundamental field of action in the health sector. There is evidence of the effects of communication on health outcomes.

> [...] It could be said that the relationship between communication and health can be compared to that of two adolescent first cousins, whose bond, which can become very close, depends to a large extent on the tug-of-war between their parents. In other words, if physicians and the rest of the health professions are interested in communication, the relationship between the two cousins will progress. If journalists and other communicators are rigorously interested in health, it will also be a good sign [...] (Cuesta et al., 2008, p. 39).

Sometimes communication leads to positive outcomes, while it can also contribute to behavior with negative health outcomes.

> Communication processes have been shown to be essential for patient notification, as well as for reducing uncertainty, increasing participation in decision making, and achieving greater social support, more effective use of health care options and facilities, better adherence to treatments, improved clinical outcomes, and greater prevention and wellness. (Mendoza Maldonado, 2021)

There are currently several different concepts and definitions of health communication, with great variability both in its configurative elements and in its scope. Communication can be defined as the symbolic exchange of shared meanings. Moreover, all communicative acts have, on the one hand, a transfer component and, on the other, a ritual component. Likewise, the ways of understanding communication in the field of health have been described as "communication and health", "health communication" and "communication for health", which in English is concentrated in the common (and very broad) term *health communication*.

> More broadly, *health communication* is recognized as a multifaceted, multidisciplinary field of research, theory and practice. Its concern is to reach different populations and groups to exchange health-related information, ideas, and methods in order to influence, engage, empower, and support individuals, communities, health professionals, patients, policy makers, organizations, special groups, and the public to advocate, introduce, adopt, or maintain a health or social behavior, practice, or policy that will ultimately improve public, community, and individual health outcomes. (Schiavo, 2013)

Health communication necessarily involves the process by which health-related information is shared and understood, giving it meaning. It occurs in healthcare/patient relationships; but also in interactions with family members and companions, as well as with society in general with the information that comes out of the healthcare environment to the media or social networks. Health

messages (personal or community) have a specific influence, to a certain degree, depending on the context (it is not the same if one is suffering from an illness, for example, or if one has a disease, for example).

1.1. Clinical communication in hospitals

The types of communication that take place within a hospital vary according to the relationships between the sender and the receiver. Communication should act as a socializing element that helps the hospital to establish and maintain satisfactory and lasting relationships with its internal public, as well as with patients and their families.

> Medicine and Communication need each other. More than ever. At all levels. Communication is an essential tool for the daily work of the healthcare professional, both in the relationship with users and in the relationship with colleagues and supervisors. Communication makes personal relationships and interactions healthier, and the doctor-user relationship is a very special type of personal relationship. (Costa Sánchez, 2011, p. 9)

At this point, the concept of "Happy Hospital," as defined by Carmen Costa Sánchez, stands out:

> [The concept of a happy hospital may seem utopian to the reader. Not in vain, in the past, the word hospital has been synonymous with illness and death. [...] Their evolution has allowed them to become today's leading exponents of research and medical treatment, as well as a place of training for future medical and nursing professionals. However, as an institution, the hospital has not known how to get closer to citizens, or at least not enough [...] Therefore, hospitals face a first challenge in improving their external image, in increasing the confidence of actual and potential users in their services, in improving relations between their professionals and their clients. [...] The happy hospital is a goal to work for and towards which to move by overcoming obstacles. (Costa Sánchez, 2011, pp. 13-15)

The trend is towards a liquid public hospital, or even an elastic hospital, which adapts to the needs of people (patients, families and professionals). Where communicative exchanges flow. Through different processes, hospitals try to involve patients, relatives, professionals and society in general: facilitating patient care by breaking down the physical barriers of the center itself and promoting exchange.

1.2. The physician/patient understanding; towards interpersonal communication

Thus, communication in clinical practice has an importance beyond its merely instrumental value but focuses on the fundamental commitments and aspirations of medicine and healthcare professionals.

The attitudes of professionals can be mainly informative, receptive, collaborative and, in addition, they must be very human (accompanying their skills). Ruiz Moral quotes Brucker (2014, p. 21) with his maxim "don't just try to communicate... try to connect," to explain that "the establishment and maintenance of an effective relationship between doctor and patient is one of the most important objectives that the professionals must set for themselves," since, as Balint pointed out in

1986, quoted by Ruiz Moral, “in it lies a large part of their therapeutic power.”

> Connecting or establishing and maintaining a rapport has a lot to do with the practitioner's ability to “get along” with the patient. This ability to rapport is not about trying to get the patient to “like us.” The connection extends [...] and is not something that happens on a one-off basis, but it is a process that is actively built. (Ruiz Moral, 2014, p. 21)

This entails the act of humanizing communication; which in turn implies relationship, contact, empathy... and the consideration of the patient as an integral person, not only as a physiological problem or disease. Humanizing requires the following: to listen, to dialogue, to communicate and to engage in communication. And all this will have an impact on the perception that users have of health services.

> Communication skills are one of the tools that should be considered to be key in the training of the health professional [...] since the ability to establish effective communication with the patient is at least as important as the purely scientific knowledge of the problem or the technical competence to deal with it. [...] Today, it is clear that good communication is positively related not only to greater patient satisfaction, which is already extremely important per se, but also to obtaining better and more efficient results in various health parameters. (Merayo et al., 2014, p. 7)

Likewise, Juan Enrique Mezzich, in the foreword to Ruiz Moral's book, agrees on the importance of clinical communication: “The importance of clinical communication is based not only on its extensive instrumental value but also on its consistency with the fundamental commitments and aspirations of medicine and health professionals. [...] The philosophical anchoring both axiological and epistemological of clinical communication is clarified and enhanced within the framework of person-centered medicine” (2014, p. 6).

> Users expect, first and foremost, to be listened to. They expect you to listen to their perception of what is happening to them. Secondly, they expect you to explain to them, to the best of your ability and in a language that is moderately accessible, but that informs them of what is wrong with them. And, thirdly, they expect to engage in dialogue to find an effective remedy within the range of possibilities that are within their reach. Of course, in this whole process the scientific knowledge of the health professional is essential. (Costa Sanchez, 2011, p. 9)

This whole process of interpersonal communication may seem simple, but this is far from being the case, since emotional factors also come into play in healthcare communication. And there is evidence of a need for significant improvement in the communication skills of healthcare professionals. Therefore, it is necessary to stop, observe, and introduce empathic factors from the very first approaches to patients by future physicians.

3. OBJECTIVES

Therefore, the idea was to encourage the medical students, during their rotation, to focus their attention, expressly and systematically, on the communication that the tutors had with the patients, patient companions and other health professionals. This was a twofold objective, on the one hand, as a training action for them, and, on the other hand, as a way of helping them to know the situation of interpersonal clinical communication in the Salamanca hospital center, as a previous step to improve it. Adjusting the results according to the participants' empathy levels.

4. METHODOLOGY

4.1. Design of the teaching activity

The basic elements that make up the teaching activity are:

- Call through the virtual platform proposing voluntary participation in the teaching activity during the rotation of students in the 6th year of the degree of Medicine.
- Initial training session on the importance of communication in health care.
- Assessment of empathy in the participants prior to their rotation.
- Observation period corresponding to their rotation in the clinical service to which they had been assigned. During the observation, notes on the communicative skills performed by the students with the support of tools, both on paper and in digital format.
- Post-activity session (focus group), for teaching purposes to reflect on what was observed and, for the teaching staff, in order to have on-site observation of communication skills in daily life.

4.2. Implementation of the teaching activity

A four-week period of teaching (as observation time) was planned for the students in the 2022-2023 academic year. The coordinator of the rotations summoned them through the Studium teaching platform. The call explained the objectives and methodology; and they were summoned for the initial session, given by communication professionals and healthcare professionals with special sensitivity to communication issues.

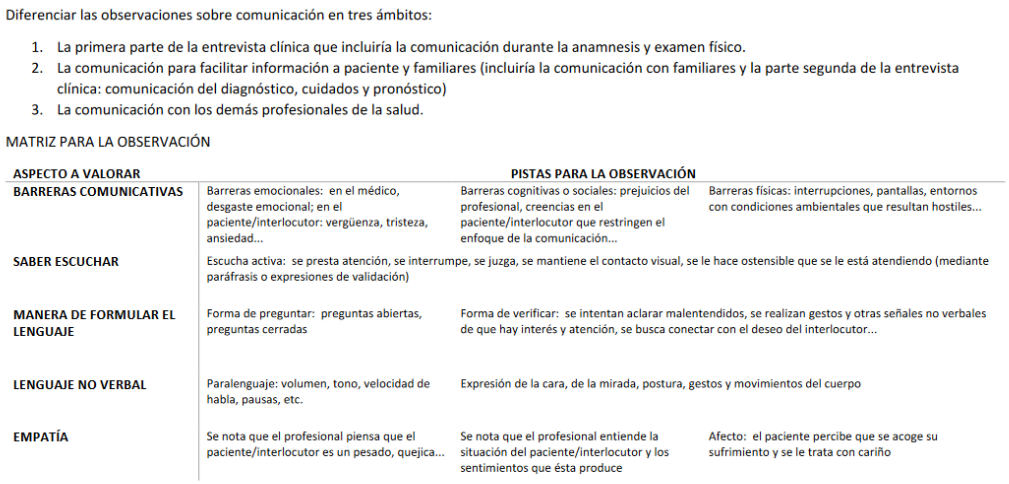
In the initial session, the main elements of communication skills in health systems were reviewed. In addition, the empathy survey was distributed for completion. The basic empathy scale was used in the adaptation and validation carried out by Oliva Delgado A and coworkers of the *Basic Empathy Scale* by Jolliffe D, Farrington DP (2006).

After collecting the survey data, the observation time was planned with the group and the support materials were distributed. Figure 1 shows the paper support tool.

A specific form was also developed in the Forms tool (Microsoft®), with 16 options. The form could be used to collect comments on the communication in a more closed format, but also anonymously. There was no limit to the number of comments that could be referenced in the digital

tool.

Figure 1. *Support tool in the form of "clues" for qualitative observation*



Diferenciar las observaciones sobre comunicación en tres ámbitos:

1. La primera parte de la entrevista clínica que incluiría la comunicación durante la anamnesis y examen físico.
2. La comunicación para facilitar información a paciente y familiares (incluiría la comunicación con familiares y la parte segunda de la entrevista clínica: comunicación del diagnóstico, cuidados y pronóstico)
3. La comunicación con los demás profesionales de la salud.

MATRIZ PARA LA OBSERVACIÓN

ASPECTO A VALORAR	PISTAS PARA LA OBSERVACIÓN		
BARRERAS COMUNICATIVAS	Barreras emocionales: en el médico, desgaste emocional; en el paciente/interlocutor: vergüenza, tristeza, ansiedad...	Barreras cognitivas o sociales: prejuicios del profesional, creencias en el paciente/interlocutor que restringen el enfoque de la comunicación...	Barreras físicas: interrupciones, pantallas, entornos con condiciones ambientales que resultan hostiles...
SABER ESCUCHAR	Escucha activa: se presta atención, se interrumpe, se juzga, se mantiene el contacto visual, se le hace ostensible que se le está atendiendo (mediante paráfrasis o expresiones de validación)		
MANERA DE FORMULAR EL LENGUAJE	Forma de preguntar: preguntas abiertas, preguntas cerradas	Forma de verificar: se intentan aclarar malentendidos, se realizan gestos y otras señales no verbales de que hay interés y atención, se busca conectar con el deseo del interlocutor...	
LENGUAJE NO VERBAL	Paralenguaje: volumen, tono, velocidad de habla, pausas, etc.	Expresión de la cara, de la mirada, postura, gestos y movimientos del cuerpo	
EMPATÍA	Se nota que el profesional piensa que el paciente/interlocutor es un pesado, quejica...	Se nota que el profesional entiende la situación del paciente/interlocutor y los sentimientos que ésta produce	Afecto: el paciente percibe que se acoge su sufrimiento y se le trata con cariño

Source: Elaborated by the authors.

4.3. Analysis

A qualitative analysis of the observations made in the post-activity focus group was planned, as well as a quantitative analysis of the observations made through the on-line survey when this was possible due to the nature of the questions.

The focus group discussion was organized around the following questions:

- What was the observation experience like?
- What communication barriers did you perceive?
- Active listening, was there any, how did you interpret it?
- Did they make use of nonverbal language, in what sense (accompaniment, reinforcement...)?
- Do you think that the doctor put himself in the other person's shoes (patients, accompanying persons, colleagues, etc.)?
- Was there an attempt to verify the understanding of the communicative exchange?
- Were there emotional bridges of affection between the participants?
- Have there been any changes in your perception of communication?

5. RESEARCH DEVELOPMENT

A total of 48 students attended the initial session. Seventy-four percent were female.

In the basic empathy scale, the mean score in the global scale was 34.9 (SD: 3.87), with mean scores in the cognitive domain of 20.42 (SD: 2.5) and in the affective domain of 14.5 (SD: 2.8). The interquartile ranges were for the global scale: [32 - 38]; for the cognitive domain: [19 - 22.75]

and for the affective domain: [13.25 - 16].

The mean scores obtained were not significantly different from those obtained in the sample of 17-year-old boys in Andalusia by Oliva Delgado et al (Z= - 1.851: p=0.064). That is, overall, the sample as a whole showed neither worse nor better scores on the empathy scale than a general sample from the educational setting. The scores on the scale did not differ between male and female students, neither for affective empathy (t= -1.7: p=0.104), nor for cognitive empathy (t=0.4; p=0.6), nor for total empathy (t= -0.8; p=0.4).

In the initial session, the students expressed their understanding of the importance of communication skills in the relationship with patients, both for the technical effectiveness of the therapeutic relationship, as well as for the construction of the bond and understanding of the patient's personal dimension. Also for the effective relationship with colleagues and safety regarding the continuity of the healthcare.

After the observation period, the students were again called to discuss the observations. Fourteen observations were retrieved in the digital form and 7 students attended the second meeting for qualitative analysis.

From the conclusions of the focus group, the main ideas observed (in the form of some of the statements extracted from the participants) are now presented:

- **On the observation experience**

Q2. “It was not uncommon, there was pre-race concern about communication. It is important both what and how it is said, as well as medical issues. For both the good and the bad. I've had doubts about whether the patient had heard, and also doctors who I could tell were fed up with the 'heavy patient', which in turn was perceived by the patient himself.”

Q1. “It was not difficult to study. Every doctor has a different treatment, but in Oncology there has not been a bad experience. It has been extraordinary to see how there can be empathy, but without being affected ('how can they say it without crying!').”

Q3. “I don't dare to ask how they say certain things, especially bad news. I guess it's just getting used to it.”

- **On perceived communication barriers**

Q5. “The computer. I felt anxious when they called the next patient before finishing writing down the information of the previous one, and they even kept the patients waiting for two minutes without providing any explanation. It is usual not to give explanations for this delay. The patients look at me and sometimes tell me about their case, because I am not at the computer. The doctors want to make progress. At the health center, communication works better than in ophthalmology.”

Q3. “Time is important, and they cut them off to write down what they need, the patients does not finish expressing themselves (distinguishing what is necessary from what is secondary for the diagnosis). They blame it on time. Sometimes they interrupt and it is done well, but sometimes it is done abruptly.”

- **On the active listening**

Q2. “A patient with arrhythmias, in Cardiology, had doubts about eating spicy food or playing tennis. The physician patiently resolved them all. In Gynecology, on the other hand, the patient is not given the opportunity to ask. They are told: ‘You have body mass index tables on the Internet, when you lose weight, come back.’”

- **On the non verbal language**

Q5. “At the health center they know the patients by their name, they hold hands if they cry, they accompany them to the door... in Ophthalmology they don't do that so much.”

Q3. “Long-term patients admitted to the hospital have been there for a long time. Sometimes they burst into tears, and the doctor acts in a friendly and empathetic way.”

Q1. “They yell at the elders, as if they were deaf, and maybe they are not.”

- **On being on someone’s shoes**

Q1. “You arrive, and you do what you see. You don't want to be the odd one out. There's distance with nursing. Except with the Supervisor, because of the frequent contact with this person. With the rest, communication is punctual. There was a problem with a nurse, who did a blood test during palliative sedation, and who could have been a student. She was told 'for all the bullshit you ask, you could have asked this one!'. With ancillaries and orderlies, there is no friction or communication. They don't know how to work as a team, it should be a chain'. Computers have been the cause of this lack of communication, medication changes are prescribed by computer, and sometimes it fails. There is no verbal communication, and there are misunderstandings. This generates tension in front of the patient, or with the patient.”

- **On verifying the patient’s understanding**

Q1. “There's everything. They used to ask, 'Is it understood, any questions?' At other times, with bad news, you let the relatives asume the news, maybe for fear of the reaction you don't tell the truth. You can tell they have experience, they are used to telling bad news.

Q5. “I think senior doctors are more distant, less empathetic.”

Q1. “I think it is the other way around, the senior ones are more empathetic.”

- **On the emotions level**

Q7. “Now I'm going to pay more attention. I've learned to avoid the bad attitudes and imitate the good ones. I have more interest now.”

Q4. “It's novel. In the future I want to balance closeness with seriousness to communicate.”

Q2. “It hasn't changed, because I considered that it was already important. I have been patient before. It's very useful this reflection.”

Q1. “Likewise, it is not the same as other theoretical content, which is seen in books. Communication is only seen in practice.”

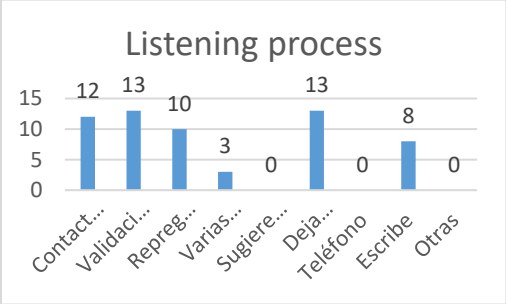
Regarding the reamarks that were sent during the period via the digital link, the results were:

In relation to the scope of the communication to which the observations is referred to: 57.1% were made regarding the communication of the diagnosis, prognosis or care plan and 42.9% were remarks on the communication made during the examination and anamnesis.

Out of the 19 references obtained regarding communication barriers observed by the students, the most frequent ones were emotional barriers: 42.1% of the remarks. They were followed by cognitive barriers (difficulty in understanding information) in 36.8% and physical barriers (mainly computer monitor and cell phone) in 21.1%.

Regarding the listening process, there were 59 references in the digital form: 22% noted the use of expressions of validation, and the same percentage noted that the physician allowed the patients time to express themselves. Some 20.3% noted that eye contact was a permanent attitude and 16.9% that cross-examinations were made. There was no observation of the use of the cell phone during the conversation and none that the patient's response was suggested.

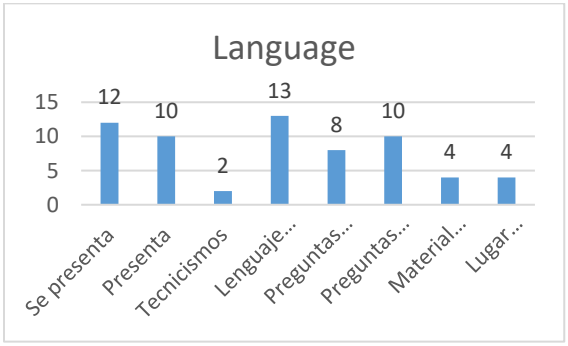
Figure 2. *Records about the listening process in the digital tool.*



Source: Elaborated by the authors.

There were 63 references in the remarks sent digitally related to the way of formulating the language: 20.6% noted the use of simple language, 19% noted that the physicians introduced themselves, 15.9% introduced other staff and 15.9% asked closed questions, only 3.2% used technical terms during the conversation.

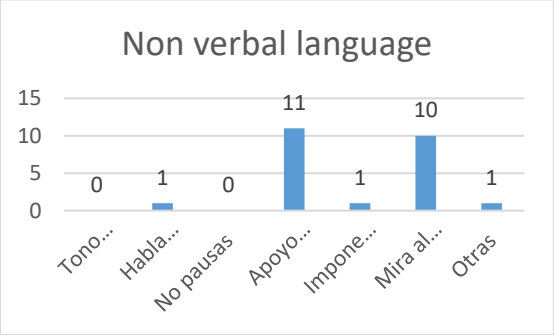
Figure 3. *References on the use of language.*



Source: Elaborated by the authors.

Regarding the records provided by the students with respect to nonverbal language: 45.8% of them were to refer to the use of gestural supports in the speech and 41.7% to note that the patient was looked in the eyes. Digitally, there were no references in the students' remarks to the use of an inappropriate tone, 4.2 % reported that they spoke quickly and 4.2 % that physical contact was imposed on the patient.

Figure 4. *Records about the non verbal language in the digital tool.*



Source: Elaborated by the authors.

Out of the 14 records that were diditally provided, only one made reference to the lack of empathy.

5.1. Results and limitations

The main result observed is that a specific training activity for students can be useful both for their learning of communication skills and, in addition, to get closer to the reality of these skills in a health care center. However, some limitations have been observed to the training activity as it was proposed:

- As it was a voluntary activity, the low number of students who participated was striking. The teaching activity competed with the learning of other specific clynical skills at the same time. The low participation could reflect the assessment of this type of skills as minor compared to others.
- The digital support tool was expected to allow no restrictions when providing remarks. And it sought to push students to observe specific issues. But, in return, its format with more closed choice options may have limited and biased the ability to collect remarks. This could explain certain discrepancies between the obtained remarks in the focus group and those obtained in the digital format.

From what was learned in the focus group, the following stands out:

- The students' perception of the importance of communication and its enormous difficulties in daily practice.
- The detection by the students of the unbalanced situation in which communication takes place: the professionals more concerned with the instrumental and operative side of communication (the one necessary for decision making on diagnosis and therapeutic plan) and the more emotional side of the patient, linked to his or her perception of vulnerability.
- The detection of a context of stress and pressure where communication takes place, both with patients and among colleagues.
- Lack of training in some specific areas such as the communication of bad news.

From the remarks in the digital tool, the students identified positive communicative skills, particularly in relation to the listening process. However, there were striking data. For example, of

the records being provided by the students about the way of using language, only 19% of the sent records indicated that the doctor was present. There was agreement in the students' perception that the most frequent communication barriers were emotional.

6. CONCLUSIONS

In clinical care, communication is highly complex as it goes beyond the mere exchange of messages, since it takes place within the framework of a relationship that aims at shared knowledge and objectives between professionals and patients. Communication that must maintain a biopsychosocial perspective and not only a biological-technical one. It must take into account the meaning of the disease for each patient, be sensitive to personal preferences and support a bond that makes shared decision-making possible, as well as an alliance for the therapeutic relationship.

The individual characteristics of patients and healthcare professionals mean that each healthcare process is unique and needs to be approached in different ways. Good healthcare communication is that which is adapted to the human being, to each of them individually. Watzlawick et al., in his basic axioms, stated that "it is impossible not to communicate". Patients live and express their story from the position of someone who is vulnerable, so that communicative elements with a high degree of emotion come into play. In each clinical exchange, the image given (and held) of each participant is continuously exposed and redefined. And the behavior of each participant is affected and affects the others. Adequate knowledge of the expectations and risks of the treatments depends on it.

In the patient-healthcare relationship, bonding and reciprocity appear as trust generators. And empathy is very important. Without communication there is no understanding and, consequently, no change. Communication gives patients greater confidence and must be bidirectional (with active listening to people). Listen a lot in order to be able to act well.

Rotations in hospital services in the last years of undergraduate training generate (scarce) opportunities to acquire clinical experience. But, above all, they offer exposure to role models. These models constitute a powerful source of what has come to be called the "hidden curriculum". As this research has shown, incorporating a semi-structured observation of communication improves the perspective and prospective of the practitioner.

One of the aspects that seem key is not so much whether the communication practice is done with simulated patients or with other agents, but, above all, whether there is structured and personalized feedback that allows them to visualize to each student the areas of improvement in communication that they should try to modify. And there is evidence that observation is not so crucial if the observation is among peers or with experts, but rather if it is the feedback from what is observed that most conditions the improvement of their communication skills.

This pilot study has shown that the experience of this teaching activity is useful in the academic training of medical students in the area of communication. And thanks to the participant observation of the group of students, it has been possible to know better how they are communicating at clinical and interpersonal level in the University Health Care Complex of Salamanca. Concluding that effective communication positively affects patient satisfaction and emotional well-being, the evolution of health outcomes and the satisfaction of professionals.

7. REFERENCES

Barrientos-Báez, Almudena; Rodríguez Terceño, José; Caldevilla-Domínguez, David & Barquero Cabrero, Mario (2020). Redes sociales: educación superior en salud e inteligencia emocional. In C. J. Santos-Martínez y D. J. Luquetta-Cediel (Coords.), *Praxis educativa, inclusión e innovación TIC en la educación superior*. Editorial Uniautónoma. http://hdl.handle.net/11619/3987

Carretero-Díaz, Miguel Ángel; Barrientos-Báez, Almudena & Caldevilla-Domínguez, David (2022). Neurocomunicación y proyecto «cuidador complutense»: aplicación en el cuidado de las personas mayores. In Ubaldo Cuesta, Almudena Barrientos-Báez y Luz Martínez-Martínez (Coords.), *Los nuevos materiales de la comunicación y la salud*. Colección: Comunicación, Neurocomunicación y Salud. Fragua.

Costa Sánchez, Carmen (2011). *La comunicación en el hospital. La gestión de la comunicación en el ámbito sanitario*. Comunicación Social Ediciones y publicaciones.

Cuesta, Ubaldo; Ugarte, Aitor & Menéndez, Tania (Coord.) (2008). *Comunicación y salud. Avances en modelos y estrategias de intervención*. UCM Editorial Complutense.

Fondevila-Gascón, Joan; Barrientos-Báez, Almudena; Caldevilla-Domínguez, David & Montero Gascó, Pol (2024). Herramientas de marketing interactivo en el sector sanitario: estudio de caso de la app Mi Salud. *Revista Cubana de Información en Ciencias de la Salud*, 35, e2257. https://acimed.sld.cu/index.php/acimed/article/view/2257

Jolliffe, Darrik & Farrington, David (2006). *Basic Empathy Scale (BES)* [Database record]. APA PsycTests. https://doi.org/10.1037/t42339-000

Mendoza Maldonado, Y., & Barría Pailaquilén, M. (2021). La comunicación en salud y la necesidad de integración interdisciplinaria. *Revista Cubana de Información en Ciencias de la Salud*, *32*(3). https://acimed.sld.cu/index.php/acimed/article/view/1692

Merayo, Antonio; Bravo, Esteban & Gordón, Fernando (2014). *La Comunicación con el paciente. Habilidades emocionales para los profesionales de la salud*. Elsevier.

Mezzich, J. E. (2014). Prólogo. In R. Ruiz Moral (Coord.), *Comunicación Clínica. Principios y habilidades para la práctica*. Editorial Médica Panamericana.

Schiavo, Renata (2013) *Health communication: from theory to practice*. Jossey-Bass.

AUTHOR'S CONTRIBUTIONS, FUNDING AND ACKNOWLEDGEMENTS

Conceptualization: Matos Agudo, Diego; Rubio Gil, Francisco Javier.; Nieto Manibardo, Enrique; Rey García, Pablo and Gómez Sánchez, José Carlos. **Methodology:** Rubio Gil, Francisco Javier.; Rey García, Pablo and Gómez Sánchez, José Carlos. **Software**: Rubio Gil, Francisco Javier.; and Gómez Sánchez, José Carlos. **Validation**: Rey García, Pablo; Nieto Manibardo, Enrique, and Gómez Sánchez, José Carlos. **Formal analysis**: Matos Agudo, Diego, and Gómez Sánchez, José Carlos. **Data curation**: Rubio Gil, Francisco Javier and Gómez Sánchez, José Carlos. **Drafting-Preparation of the original draft**: Last name Last name, NAME. **Drafting-Revision and Editing**: Matos Agudo, Diego and Gómez Sánchez, José Carlos. **Visualization**: Matos Agudo, Diego; Rubio Gil, Francisco Javier.; Nieto Manibardo, Enrique; Rey García, Pablo and Gómez Sánchez, José Carlos. **Supervision:** Matos Agudo, Diego. **Project management**: Matos Agudo, Diego. **All authors have read and accepted the published version of the manuscript:** Matos Agudo, Diego; Rubio Gil, Francisco Javier.; Nieto Manibardo, Enrique; Rey García, Pablo and Gómez Sánchez, José Carlos.

Funding: This research received external funding**.**

Acknowledgments: This article is part of the research project in Health Management and Social and Health Care of the Instituto de Investigación Biomédica de Salamanca (IBSAL) with code IBYG22/00001**.**

Conflict of interest: There are no conflicts of interest.

AUTHORS

Diego Matos Agudo
University Health Care Center of Salamanca. Institute of Biomedical Research of Salamanca (IBSAL).

Journalist, PhD in Communication, Master in Business and Institutional Communication Management and university professor. He is currently the Director of Communication at the University Health Care Center of Salamanca and the head of the research group/platform "Communication and Health" at the Institute of Biomedical Research of Salamanca. He is also part of the "MacGuffin" research group at the Pontifical University of Salamanca. Researcher and speaker at national and international conferences, lectures and as a teacher at various universities and centers. His main line of research is the study of comics, especially in relation to comics as a journalistic genre. He is the author of several informative books. His work has been developed at local level in press, radio and television and he has published in specialized media at national level. He also studies (1) cultural processes (cinema, television), (2) the culture of nostalgia, (3) documentary sources and (4) communication in the field of health. He is the president of the Salamanca Association of Journalists (ASPE).

Orcid ID: https://orcid.org/0000-0002-2264-8946
Google Scholar: https://scholar.google.es/citations?user=HbMkf4QAAAAJ&hl=es
ResearchGate: https://www.researchgate.net/profile/Diego-Matos-Agudo

Francisco Javier Rubio Gil
University Health Care Center of Salamanca. Institute of Biomedical Research of Salamanca (IBSAL).

Diploma in Nursing from the University of Salamanca since 1992 and granted the degree in Nursing by the Ministry of Education in 2016. Member of the cross-disciplinary communication platform of the Institute of Biomedical Research of Salamanca. Head nurse of the Quality Unit of the University Hospital of Salamanca since 2016. Research areas: breastfeeding, intensive care and health communication. He has 6 publications in indexed journals, 3 communications in national congresses, 4 poster communications in national congresses.

Orcid ID: https://orcid.org/0000-0002-4813-2761

Enrique Nieto Manibardo
University Health Care Center of Salamanca. Institute of Biomedical Research of Salamanca (IBSAL).

Law Degree; Master in Digital Advocacy and New Technologies; Master in Legal Practice. He has worked for more than five years in the University Health Care Center of Salamanca, as responsible for information security and currently he is also Head of the Legal Department. He is a teaching assistant at the University of Salamanca. Professor of the Master's Degree in Digital Law and New Technologies and the Master's Degree in Legaltech and digital management of the legal profession, both at the University of Salamanca. Professor of the Master in Management and Direction of Clinical Admission and Documentation Services (GEDISA). His main areas of research include health law, data protection and law and new technologies.

Orcid ID: https://orcid.org/0000-0002-4840-4093

Pablo Rey García
Pontifical University of Salamanca. Institute of Biomedical Research of Salamanca (IBSAL).

Professor at the Pontifical University of Salamanca (UPSA) where he teaches International Relations and International Politics. He holds a PhD in Communication with an Extraordinary Award from the UPSA, a Master's Degree in Peace, Security and Defense from the General Gutiérrez Mellado University Institute, and a Diploma of Advanced Studies in Contemporary History from the University of Salamanca. Visiting Professor at Wright State University in Dayton, Ohio, and with research stays at the Hebrew University of Jerusalem, the University of Leuven, the American University of Beirut, the Yad Vashem or the University of Latvia, among others.
Orcid ID: https://orcid.org/0000-0001-9962-7003
Google Scholar: https://scholar.google.es/citations?user=KWiCKKEAAAAJ&hl=es
ResearchGate: https://www.researchgate.net/profile/Pablo-Rey-Garcia

José Carlos Gómez Sánchez
University Health Care Center of Salamanca. Institute of Biomedical Research of Salamanca (IBSAL).

Neurologist, specialist physician at the University Health Care Center of Salamanca, Doctor of Medicine, accredited training in Neurosonology, researcher of the Molecular Neurobiology group of the Biomedical Research Institute of Salamanca, associate professor at the University of Salamanca. Stays at UCL Queen Square Institute of Neurology (stroke unit), London, at the Neurological Rehabilitation Unit of the Rehabilitation Service of the University Hospital Center of A Coruña and at the Hospital Center of Alessandria (Italy). He held health management positions as Deputy Medical Director and Medical Director of the University Health Care Center of Salamanca. Member of the Communication and Health platform of the Biosanitary Research Institute of Salamanca.

Orcid ID: https://orcid.org/0000-0001-6096-7051

RELATED ARTICLES:

Apodaka, E., Amezaga, A., & Galarraga, A. (2022). La irrupción de los traductores neuronales en sistemas de actividad lingüística reglada: Distorsiones, conflictos e innovaciones. *European Public & Social Innovation Review*, *7*(2), 27-42. https://pub.sinnergiak.org/esir/article/view/196

Bensalem, E. (2022). El impacto del disfrute y la ansiedad en la voluntad de comunicarse de los estudiantes del idioma inglés. *Vivat Academia, Revista de Comunicación*, 155, 91-111. https://doi.org/10.15178/va.2022.155.e1310

Carral, U., & Elías, C. (2024). Aplicación de herramientas de IA como metodología para el análisis de la toxicidad en la conversación en redes sociales: Estudio de caso de la política española en Twitter. *Revista Latina de Comunicación Social*, 82, 1-18. https://doi.org/10.4185/rlcs-2024-2205

Castro-Martínez, A., Díaz-Morilla, P., & Torres-Martín, J. L. (2022). El papel de la comunicación interna en la gestión del teletrabajo durante la crisis de la COVID-19. *Revista de Comunicación de la SEECI*, 55, 29-51. https://doi.org/10.15198/seeci.2022.55.e768

Dugnani, P. (2023). Meios de Comunicação, Extensão, Escapismo e Isolamento social: Os paradoxos da comunicação nas relações sociais pós-COVID. *Revista de Ciencias de la Comunicación e Información*, 28, 24-37. https://doi.org/10.35742/rcci.2023.28.e279