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ORIGINAL

Impact of Communication on Healthy Lifestyle and Healthcare Sector

Impacto de la comunicación en el estilo de vida saludable y el sector sanitario

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ABSTRACT

Introduction: the article is devoted to the study of the influence of communication in healthcare on the promotion of a healthy lifestyle, prevention, treatment, and rehabilitation of patients based on data from scientific research in communication psychology, biomedical ethics, and medical communication.
Method: the following methods were used in the study: analysis and synthesis methods, a comparative method, situation modeling and forecasting method.
Results: The authors describe the specifics of communicative interaction between doctor and patient and its main trends at different stages of medical care. The article formulates the main communicative tactics of doctor-patient dialogue, the use of which will contribute to improving the results of treatment and disease prevention. It is shown that the treatment process directly depends on the effectiveness of the doctor-patient communication model, since the patient's trust in the doctor is the basis of the recovery process. The features of communication between the doctor and the patient are described, and the influence of ethical principles and knowledge of the psychological characteristics of this type of professional interaction on the effectiveness of such interaction is shown. The authors emphasize that communication between doctor and patient takes place on two independent and mandatory levels: linguistic and extralinguistic. The "doctor-patient" communication model is not constant and changes depending on the sphere and purpose of such communication: prevention, treatment, or rehabilitation. This is the basis for choosing tactics, means, forms, and strategies of communication.
Conclusions: the most optimal model of interaction between a doctor and a patient is currently considered to be the "partnership model," which involves the patient in making joint medical decisions, thereby reducing patient anxiety. Involving the patient in dialogue in this model allows the responsibility for the treatment process to be shared between the parties involved. Prospects for further research include improving communication tactics in healthcare by all healthcare providers (doctors, nurses, and other healthcare professionals), studying ethical issues in healthcare communication, and developing new communication tactics to improve the effectiveness of healthcare delivery and public health.

Keywords: Communication; Communication in Medicine; Communication Slills; Patient; Doctor-Patient Communication; Levels of Communication; Variants of Communication; Healthcare Sector; Communication Tactics.

RESUMEN

Introducción: el artículo está dedicado al estudio de la influencia de la comunicación en la atención sanitaria en la promoción de un estilo de vida saludable, la prevención, el tratamiento y la rehabilitación de los pacientes a partir de los datos de la investigación científica en psicología de la comunicación, ética biomédica y comunicación médica.
Método: en el estudio se utilizaron los siguientes métodos: métodos de análisis y síntesis, un método comparativo, modelización de situaciones y método de previsión.
Resultados: los autores describen las especificidades de la interacción comunicativa entre médico y paciente y sus principales tendencias en las diferentes etapas de la atención médica. El artículo formula las principales tácticas comunicativas del diálogo médico-paciente, cuyo uso contribuirá a mejorar los resultados del tratamiento y la prevención de enfermedades. Se demuestra que el proceso de tratamiento depende directamente de la eficacia del modelo de comunicación médico-paciente, ya que la confianza del paciente en el médico es la base del proceso de recuperación. Se describen las características de la comunicación entre el médico y el paciente y se muestra la influencia de los principios éticos y el conocimiento de las características psicológicas de este tipo de interacción profesional en la eficacia de dicha interacción. Los autores subrayan que la comunicación entre médico y paciente tiene lugar en dos niveles independientes y obligatorios: el lingüístico y el extralingüístico. El modelo de comunicación «médico-paciente» no es constante y cambia en función del ámbito y la finalidad de dicha comunicación: prevención, tratamiento o rehabilitación. Esta es la base para elegir tácticas, medios, formas y estrategias de comunicación.
Conclusiones: actualmente se considera que el modelo más óptimo de interacción entre un médico y un paciente es el «modelo de asociación», que implica al paciente en la toma de decisiones médicas conjuntas, reduciendo así la ansiedad del paciente. Implicar al paciente en el diálogo en este modelo permite compartir la responsabilidad del proceso de tratamiento entre las partes implicadas. Las perspectivas de investigación futura incluyen la mejora de las tácticas de comunicación en la atención sanitaria por parte de todos los profesionales sanitarios (médicos, enfermeras y otros profesionales sanitarios), el estudio de las cuestiones éticas en la comunicación sanitaria y el desarrollo de nuevas tácticas de comunicación para mejorar la eficacia de la prestación sanitaria y la salud pública.

Palabras clave: Comunicación; Comunicación En Medicina; Lentitud Comunicativa; Paciente; Comunicación Médico-Paciente; Niveles de Comunicación; Variantes de Comunicación; Sector Sanitario; Tácticas de Comunicación.

INTRODUCTION

People are biosocial individuals, whose development and life activities, in addition to biological factors, are significantly influenced by the environment and relationships in society. When interacting between people, feedback loops or cycles arise, which form the basis of communication. Communication is not only the words spoken by a person, but also postures, gestures, facial expressions. Nowadays, communication skills are a component of the so-called “soft skills”, the importance of which is growing every year in all human-centered professions, including medicine.

From the end of 2019 healthcare communication has undergone a number of upheavals and challenges, which have significantly changed its approaches. Spreading of new previously unknown infection SARS-CoV-2 (COVID-19), absence of adequate epidemiological information, data for its’ early detection, prophylaxis and treatment scared people and added panic in society. Moreover, frequent changes in treatment protocols, insufficient data and their ambiguity regarding the effectiveness of vaccination have exacerbated the gap in communication between doctors and patients. This fact forced family doctors to intuitively develop communication tactics with patients in extremely dynamic and stressful situations.[1,2]

Full-scale war in Ukraine led to new communication challenges in medicine: inadequate number of military doctors and hospitals, absence of psychological supports of military and their families, lack of civilian doctors’ experience and skills for working with military patients, territorial inaccessibility of medical care to patients due to military actions and occupation. Thus, the study of impact of communication in the healthcare sector and search for effective methods for its improvement is actual goal for global medicine, especially for Ukrainian one.

Effective communication between doctor and patient is as important part of healthcare provision as using of progressive diagnostic and treatment technologies. Well-known “placebo effect” related with the patient’s trust in the doctor is directly depends on doctor-patient communication and its effectiveness.[3] Adherenence to doctor’s recommendations directly depends on the quality of “doctor-patient” communication because the

patient's trust in the doctor is a basis of the recovery process. Additionally, miscommunication is the main reason for legal claims and conflicts between doctors and patients in Ukrainian healthcare causing over 80 % of all them.[4]

The aim of the article was to investigate communication and its impact on people's healthy lifestyles and the healthcare sector, as well as to find the main trends in its development by studying of results of the latest scientific research in the biomedical ethics, communication psychology and medical communication.

Research goals

- to define "communication in medicine" meaning;
- to study importance of communication in medicine;
- to find the main trends in communication in healthcare;
- to define the features of communication in healthcare not only between doctor and patient, but also doctor and patient's relatives, especially when we are talking about pediatrics practice;
- to investigate the main communication tactics in healthcare, implementation of which can improve health of society and medical care quality.

Literature review

Communication in healthcare is predominantly characterized by a pragmatic approach, where communication tactics depend on the type of patient, the clinical situation, and the specifics of the planned interventions. Communicative tactics, namely linguistic means and techniques used by the doctor and patient during interaction, differ from each other because they pursue different communication goals. Thus, the primary goal of communication for a doctor as a healthcare provider is to establish an image of a specialist whom the patient should trust with their health and whose recommendations they should follow. Meanwhile, the main goal of communication between a patient and a doctor is to obtain the necessary information about the state of their health, possible prospects for its development under various conditions, and options for treatment and rehabilitation. Since the patient in this case is a consumer of medical services, they do not aim to please the doctor or convince them of anything.

In their work, Sheehan et al.[5] showed that effective communication in medicine can reduce healthcare costs, as it is cheaper to prevent a disease than to treat it. Providing adequate information to patients by healthcare professionals and sufficient and understandable explanations of the diagnostic and treatment methods used contributes to maintaining the health of individuals and society as a whole. Inadequate communication, in turn, is associated with a poorer prognosis for the patient, namely the development of complications, the need for hospitalization and emergency care, which is a significant financial burden for any healthcare system.

Effective communication in healthcare depends on several factors: medical literacy, the absence of language barriers, and the cultural competence of those involved in communication. If any of these factors are compromised, communication becomes less effective.[6] When discussing communication in healthcare, it is necessary to remember about another level of healthcare provision, namely the interaction between nursing staff (nurses) and patients, which is a key component of nursing care.[7,8,9] The nurse-patient communication model proposed by Kwame and Petrucka[7] emphasizes a person-centered rather than the frequently used patient-centered approach. This approach has a therapeutic effect regardless of the treatment provided, because the patient is first and foremost an individual who has sought medical help and communicates directly with medical staff.

When talking about communication in medicine, special attention should be paid to the doctor's empathy and its impact on the effectiveness of communication with the patient. Howick et al.[10] found positive effects associated with the empathy of medical staff on the overall satisfaction of patients with treatment, which were similar to many pharmacological methods of therapy. At the same time, by improving a number of psychological and physical conditions, empathy and a positive attitude on the part of the doctor did not cause any harm to patients.[11]

The COVID-19 pandemic and the development of digital and social media have changed the familiar and established concept of medical communication between patients and healthcare professionals in face-to-face interactions, partially shifting it to the online space, which required the development and implementation of powerful communication platforms for the transfer of various types of data and mastery by both medical staff and patients of computer and digital technologies at a higher level.[12,13] The health data collected by doctors on individual patients is combined, systematized, and analyzed at the level of society or specific cohorts to better understand population health and the possibility and effectiveness of implementing new scientific data into real clinical practice.

METHOD

The following methods were used in the study:

- analysis and synthesis methods were used for a critical review of scientific literature, definition of

the concept of "communication in medicine," study of the importance of communication in medicine, and description of the characteristics of the "doctor-patient" communication model;

- a comparative method was used to identify similar, partially similar, and specific modifications of the "doctor-patient" communication model;
- a situation modeling and forecasting method was used to model communication situations at different stages of medical care (diagnosis, treatment, prevention) or according to patient types;
- the generalization method allowed drawing conclusions from the study and summarize recommendations for improving public health by improving communication tactics.

RESULTS

Communication between a doctor and a patient happens both verbally (linguistically) and nonverbally (extralinguistically), including gestures, tone and pace of speech, facial expressions, and posture, which are sometimes underestimated.[14,15] The linguistic level of communication is usually used when collecting complaints, medical history, and information about the patient's life, informing about the diagnosis, plan for additional examinations, treatment and rehabilitation measures, and familiarizing the patient with recommendations.[16,17] The extralinguistic level of communication is distinctly bidirectional, because on the one hand, the patient "reads" the doctor's reaction to medical records and physical examination results, and on the other hand, the doctor evaluates the patient's facial expressions and gestures when describing their complaints, conducting an objective examination, reactions to the doctor's words, actions, and nonverbal means of communication, which often allows the doctor to better and more thoroughly assess the patient's physical and psychological health. In the "doctor-patient" communication model, the linguistic and extralinguistic levels are inextricably linked.

The main aspects of the doctor-patient communication model are:

- interpersonal communication, mainly in the form of dialogue;
- it can be short-term or long-term;
- it includes communicative (exchange of information, data), interactive (doctor-patient interaction) and perceptive (getting to know each other) aspects;
- the presence of primary identification with predetermined roles that cannot be changed;
- it can occur directly (face-to-face) or indirectly (e.g., using telecommunications);
- emotionality, since the quality and effectiveness of such interaction requires empathy from the doctor, especially when communicating an incurable, life-threatening diagnosis, and depends significantly on the emotional state of both the doctor and the patient;
- the importance of medical tolerance when listening to the patient's complaints and medical history, and their reflexivity, i.e., the ability to put themselves in the patient's place.

Doctor-patient communication is an integral part of a doctor's professional and ethical culture, which should be based on adherence to the principles of biomedical ethics and requires doctors to have certain psychological knowledge and skills to build quality communication with patients based on their psychological characteristics, type of information perception, and the purpose of the communicative act (prevention, treatment, or rehabilitation). In addition, effective communication skills of medical personnel include their ability to avoid conflict situations and, when they arise, to resolve them as quickly as possible using assertive techniques, creating a positive image of both the professional doctor and the healthcare facility.[2]

The communicative goal of doctor-patient interaction may include:

- positive patient assessment of the medical care provided (in most cases, this is the main goal of communication);
- doctor satisfaction with the work performed and the results obtained;
- patient understanding of recommendations, their memorization, and active implementation.

As mentioned above, the communicative model of "doctor-patient" changes depending on the purpose of such interaction: prevention, treatment, or rehabilitation—using different communicative tactics, forms, means, and strategies of communication.[18] The communicative goal of prevention is the doctor's desire to prevent the onset of a disease (primary prevention) or its progression with the development of complications (secondary prevention). In this case, the use of "aggressive means" of communication may be justified: some exaggeration of the condition and prospects for the development or progression of the disease, giving negative examples from personal experience, a certain "intimidation" of the patient with possible prospects, in order to strengthen the emotional impact on the patient and convince them to follow the doctor's recommendations more clearly.

The "educational communication model" is the basic model of communication in healthcare for the purpose of effective disease prevention. In this model, the doctor is positioned as a mentor, a "guide" to a healthy

future, who teaches the patient methods of controlling their own health and forms an understanding of the right choices and habits for a healthy lifestyle.[19] The doctor can implement this model independently, but the involvement of organized groups of the population (preschools, schools, vocational and higher education institutions), public organizations, and society as a whole contributes to the effectiveness of this model, as it involves the public in improving the healthcare system.

In modern literature, various models of medical consultation can be found, which are divided into separate stages and classified according to the stage of the recovery process or type of communication (doctor-oriented or patient-oriented). Today, the most optimal model of communication between doctor and patient is the so-called "partnership model," in which the patient is directly involved in making joint medical decisions. Involving the patient in decision-making helps reduce patient anxiety, shares responsibility between the doctor and the patient, thereby improving interpersonal interaction between the doctor and the patient and increasing compliance with recommendations.[20] In addition, it allows the patient to be transferred from the status of an object to a subject of medical interaction.

Most Ukrainian doctors consider the communication model described above to be the most acceptable in healthcare, as it allows patients to freely choose their doctor and the available diagnostic and treatment methods, while the doctor and patient are on the same side in fighting the disease, which can have significant clinical results, such as lower blood pressure, reduced pain, and improved quality of life for the patient.

Communication between the doctor and the patient begins with the initial contact, which is one of the most important stages of interaction between the doctor and the patient, the main purpose of which is to create an atmosphere of trust and mutual respect, which is the basis for professional interaction. As a rule, such contact occurs during the first visit to the doctor, most often in his office, but recently it has become increasingly common during a telephone conversation or video call in the case of online consultations.

The first contact goes through these communication phases:

- *Contact*, which is the shortest and looks like this: introduction – psychological contact – first impressions – prerequisite for communication – interpersonal interaction;
- *Orientation*: clarifying the reason for the visit – assessing the patient's extralinguistic level of communication – determining interpersonal distance (based on social status and life experience) – actively listening to the patient, including moderate facial expressions and gestures by the doctor in response to the patient's statements, aimed at calming the patient, reducing tension in communication and psychological closeness to the patient, partial relief of the patient's condition – establishing mutual understanding/antipathy;
- *Argumentation*, which is the most active phase, involves obtaining additional information by verbal (clarifying the information received from the patient with additional questions) or nonverbal means (conducting a physical examination of the patient);
- *Correction* or feedback is the final phase, where the doctor summarizes the conversation and checks that the patient has correctly understood the doctor's conclusions. In this phase, the patient has the opportunity to ask the doctor any questions that arose during the conversation, and the doctor emphasizes the main stages of treatment and informs the patient of the date and time of the next visit, giving the patient an optimistic outlook and wishing them a speedy recovery.

When gathering information and clarifying the characteristics of a disease, the term "open-closed cone" is often used, which refers to the gradual narrowing of the cone as one moves from open to closed questions. The consultation should begin with open-ended questions that require detailed answers from the patient, allowing the patient to express themselves and the doctor to assess verbal and nonverbal information and identify the leading symptom or syndrome that prompted the patient to seek medical help. Next, to clarify the details, move on to leading and concluding questions, ending with a summary, such as: "So, your main problem is..." or "The main reason for your visit is...".

At the treatment stage, the basis of doctor-patient communication is explanation and planning. Effective communication at this stage ensures the formation of trusting relationships, which is a prerequisite for adherence to the prescribed treatment regimen.[21] It should include the following steps:

1. Determining the patient's level of interest in receiving information (the amount and depth of information should be based on their medical education, intellectual abilities, etc.);
2. Providing information in doses and checking patients' understanding according to their needs;
3. Clarifying with the patient whether they need additional explanations about their condition or the course of the disease.

At this stage of communication, the focus is on the physician explaining the chosen treatment plan to the patient, highlighting its advantages and disadvantages in this particular case and ensuring a patient-centered approach. Justifying the treatment strategy is extremely important for motivating the patient to start therapy,

especially when the patient is influenced by third parties, information from the Internet, fear of side effects, or is simply exhausted by the existing disease.[22] In the case of long-term treatment, it is essential to emphasize and convince the patient of the importance of continuing treatment and recommend periodic follow-up visits to monitor the dynamics of the condition and adjust the therapy.

The use of the chronological method is important in explaining the next stages of medical care, as it is related to the inductive method but is based on a specific sequence of events and the generalization of various time elements. That is, the doctor states certain facts, analyzes, evaluates, and summarizes them. The deductive method, which involves moving from the general to the specific, is recommended for convincing and justifying one's opinion. The analogy method, which involves comparing clinical cases, symptoms, and treatment tactics, is effective in the process of convincing the patient.

Communication between a doctor and a patient may be accompanied by certain barriers: communicative, psychological, or sociocultural (figure 1).

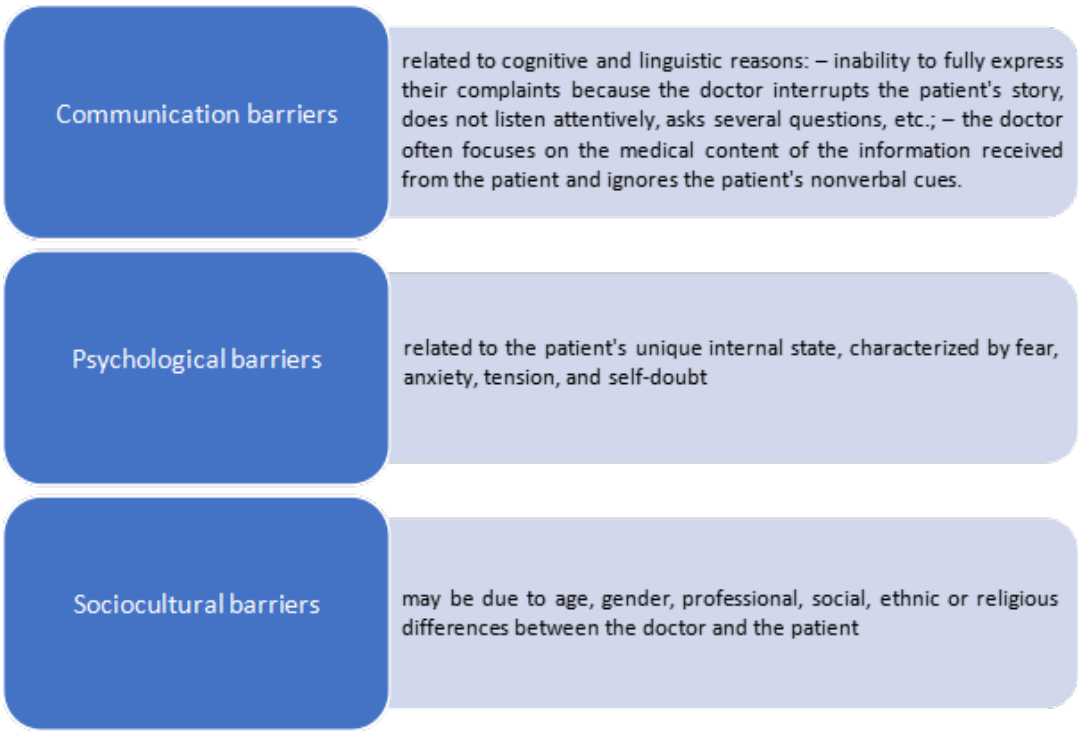

Figure 1. Barriers to doctor-patient communication
Source: compiled by the authors based on Shaarani et al.,[23] Page et al.[24]

Maintaining dialogue with an aggressive patient is a difficult communication task for a doctor. Therefore, knowledge and use of methods that can reduce tension in interactions are important in healthcare communication. Such methods include:

- maintaining eye contact;
- paying attention to the patient's verbal and nonverbal means of communication;
- expressing concern about the situation, not the person;
- repeating and clarifying;
- summarizing and confirming.

In order to reduce aggression in the "doctor-aggressive patient" communication model, the following techniques should be used:

1. Emphasize the importance of the patient by using phrases such as: "Thank you for your honesty. Let's think together about what we can do in this situation," "Thank you for telling me what you don't like. This will help us find a better solution."
2. Name the patient's feelings: "You feel angry when you think about this...", "If I understand you correctly, you are upset about the situation with...".
3. Emphasize commonality, unity, and understanding: "It is important to me, as it is to you, that you feel better...", "We both want to resolve this situation...".
4. Listen actively: "Do you think the problem is...?".

5. Encourage the person to continue talking: “Am I right in understanding that...”, “Of course, what else...?”
6. Show emotional involvement and commitment: “I’m glad I could help”.

DISCUSSION

The most common communication algorithm in healthcare is the Calgary-Cambridge model of medical consultation,[14] as it covers the entire consultation process and allows for effective communication. This model consists of five consecutive stages, each of which involves the performance of specific skills.

Steps of the Calgary-Cambridge model of medical consultation:

1. The consultation begins with preparation, establishing an initial rapport, and determining the reason for seeking medical help.
2. The medical history is collected by asking open and closed questions, assessing verbal and nonverbal cues, and actively listening to the patient and/or their relatives.
3. The patient is examined, starting with determining the patient’s readiness, explaining the physical examination procedure and its stages.
4. Explaining and planning further steps includes explaining in language that is understandable to the patient, providing clear and comprehensive answers to questions, and providing psychological support to the patient if necessary.
5. The consultation ends with a summary of the consultation, announcement of further plans for additional examination, treatment, and, if necessary, rehabilitation, and clarification of any unclear points.

Communication tactics used when taking a medical history include:

- asking questions clearly and precisely;
- the ability of the doctor to listen to the patient fully;
- the ability of the doctor to provide medical information in language that is understandable to the patient, taking into account the patient’s psychological characteristics related to age and gender;
- avoiding excessive emotionality so as not to frighten the patient;
- sticking to the topic and subject of the conversation.

The technique of “active listening,” which consists of pauses, repetitions, and clarifications of the information provided by the patient, is important for gathering initial information and summarizing the data obtained during the consultation.

The approach to effective communication in healthcare proposed by Ratna,[6] which requires sufficient medical literacy on the part of patients, cultural understanding, and the absence of language barriers, is, in our opinion, quite difficult to implement in real clinical practice. At the same time, it is important to acknowledge that healthcare professionals may make mistakes due to a lack of understanding of the patient’s problems, particularly those related to a failure to implement any of the proposed components of effective communication.

CONCLUSIONS

Thus, effective communication between doctor and patient is an important component of the treatment and diagnostic process, as it directly affects its quality and effectiveness, ensuring better compliance with the doctor’s recommendations and improving the patient’s health and prognosis. Communication between a doctor and a patient is a specific communication model that is constantly modified depending on the need and type of communication interaction and is characterized by the following features:

- mainly takes the form of a dialogue;
- can be short-term or long-term;
- can be direct or indirect, for example through relatives;
- belongs to models of interpersonal communication;
- is characterized by professional tolerance and emotionality;
- is often associated with both external and internal reflection;
- includes communicative, interactive, and perceptive aspects.

Adherence to ethical principles of communication is an integral component of medical professional and ethical culture, in which, in addition to professional knowledge, medical personnel must understand the psychological characteristics of patients and, depending on these, use different reporting methods and options for communicative interaction.[25]

It should be noted that the model of communication between a doctor and a patient is not static and largely

depends on the purpose of seeking medical help: prevention, treatment, or rehabilitation. At the same time, the communication tactics used by medical workers differ from those used by patients because they pursue different intentions. Thus, the doctor's communication strategy is aimed at forming the image of an expert – a professional who can and should be trusted and whose recommendations should be followed. Meanwhile, the patient's communication strategy is aimed at obtaining the necessary information about their health, possible prospects for its dynamics under various conditions, and options for treatment and rehabilitation.[26]

The most optimal communication model in healthcare today is the "partnership model," in which the patient is directly involved in medical decision-making at a certain level, which helps reduce patient anxiety and improve understanding of the processes involved. Dialogue with the patient and joint decision-making allow responsibility to be shared between the doctor and the patient, thereby involving the patient in the treatment process.

The "educational communication model" is the basic communication model for effective disease prevention, in which the healthcare professional is a mentor – a leader who guides the patient toward a healthy future by teaching them and helping them form healthy lifestyle habits. The educational communication model can be implemented independently by a doctor or with the involvement of organized groups of the population (preschools, schools, vocational and higher education institutions), public organizations, etc.

Further research is needed to improve communication tactics in healthcare by all healthcare providers (doctors, nurses, and other healthcare workers), to study ethical issues in healthcare communication, and to develop new communication tactics to improve the effectiveness of healthcare delivery and public health.

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CONFLICT OF INTEREST

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