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MODERN TECHNOLOGIES IN THE PROCESS OF FORMING EFFECTIVE INTERACTION IN THE "DOCTOR-PATIENT" SYSTEM

Abstract. The article describes the existing problems in the national system of interaction "doctor-patient", examines the main changes which take place in the field of health care in Ukraine, proves the need for the formation of managerial competencies of modern doctors. The authors disclose the essence of the concept of interaction in the system "doctor-patient" and also proposed to use virtual technologies in the training of modern doctors, that will allow to form the necessary management skills. Things which are noticed before, will help to build the constructive communication process between a doctor and a patient and, as a result, will increase not only the satisfaction with the health care system of Ukraine, but also the level of health of the nation.

Keywords: *management, skills, competency, health care system*

Jel Classification: I10, I11, I12, I18.

Urgency of the research. Nowadays, more and more attention needs to be paid to the health of people in any country all around the world. The challenges facing humanity are first and foremost related to health care. There are different medical problems in the different countries and the factors that lead to them are also different. That are noticed before, leads to the search for effective ways of solving problems not only at the macro level, but also at the micro level, as it is the primary link that has a huge impact on the interaction in the “doctor-patient” system, which is the key to effective implementation of proper medical care.

Actual scientific researches and issues analysis. Management aspects of the health care system were studied by O. Baeva, M. Bilynska, D. Dmitrov, D. Karamishev, I. Chukhno, L. Lihstaba. Research of effective ways of formation the competencies of the modern manager was carried out by N. Bogdan, I. Solonenko, T. Kristopchuk, T. Kurilo, L. Lishtaba, L. Mirabile, J. Stotey, C. Woodruf. The concept of interaction in general and interpersonal interaction in particular is devoted to many works of many scientists: G. Andreeva, R. Konechny, J. Thibaut, G. Kelly, L. Orban-Lembrick, R. Wich, R. Nilson. At the same time, almost no attention was paid to the use of modern technologies in the process of forming effective interaction in the system of "doctor-patient."

The research objective: to study the existing health care system in Ukraine, to identify the main shortcomings in the direction of improving the managerial competencies of a modern doctor, to suggest relevant ways to solve problems.

Methods: empirical research (observation, comparison); theoretical knowledge; general research methods (analysis, induction, deduction, analogy, statistical methods).

The statement of basic materials. For a detailed description of the existing problems in the system of interaction "doctor-patient" it will be advisable to conduct research in the following areas: 1) changes in the health care system in Ukraine after the reforms; 2) the needed skills of a modern doctor to form effective

interaction in the “doctor-patient” system; 3) using modern technology in the system of an education process

Changes in the health care system in Ukraine after the reforms

Today in Ukraine there are about 10 thousand specialized doctors of family medicine. In order to make the reform work, Ukraine needs more than 30,000 specially trained family doctors. Annually, medical universities graduate 12,000 people with the relevant diploma, but only about 3,5 thousands from them remain in domestic medicine, that is 10% of the required number.

The schedule for reforming the health care funding system and other major changes to take place in the health care industry in 2017-2020 provides for the following [1]: 1) Introduction of a new financing model for the primary care; 2) Establishment of fundamental legal principles for a new health care financing system; 3) Establishment of a sole national health care customer; 4) Establishment of a uniform electronic health information exchange system; 5) Review of unified clinical protocols for a list of the most widespread medical circumstances and simplification of requirements to paper-and-pencil reporting in health care institutions; 6) Introduction of a new financing model for secondary care and tertiary care. Starting from 2018, the new model is to be introduced in all institutions providing hospital care; 7) In the first half of 2017, it is approved the cost analysis methods (cost of health care services) at the health care institutions; 8) Establishment of hospital districts; 9) Introduction of the national medicines reimbursement system for a definite list of medical circumstances; 10) Independence of publicly funded health care institutions.

Following a survey of the population of Ukraine on the quality of health services, the following data were obtained [2]: 20% of Ukrainians believe that the quality of public health services has improved in the last two years; 37% saw worsening; 32% of Ukrainians surveyed believe that nothing has changed in medicine; 12% failed to respond (Figure 1).

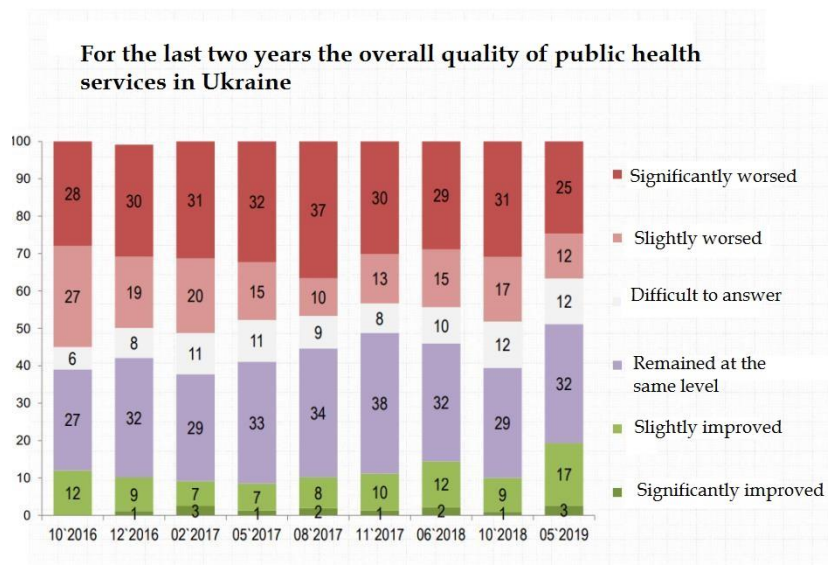


Figure 1 – The result of the survey on the quality of health services in Ukraine [2]

So, the health system performance in Ukraine has not reached the proper level. The large-scale changes that have taken place today have been displaced the not-efficient system but, unfortunately, have not yet get sustained the positive result. On the one hand, this is explained by the lack of time and, on the other, by the ineffective interaction in the doctor-patient system, which influences the indicators of the survey and is provided by the relevant skills of primary care physicians, (which European colleagues have been possessing for the long time). The new generation of medical workers must be taught modern methods of forming appropriate communication with the patient.

The needed skills of a modern doctor to form effective interaction in the “doctor-patient” system

The doctor-patient communication is considered a multidisciplinary, multi-methodological and multi-dimensional phenomenon [3]. It is multidisciplinary because it requires linguistics, psychology and pedagogy; multi-methodological because it needs the use of different styles and approaches to communication according to the patient and the situation in which they are; and multi-dimensional because it covers from verbal, nonverbal, paraverbal, written and media communication.

The concept of interaction in general and interpersonal interaction in particular is devoted to many works of many scientists. Famous American psychologist R. Wich (USA), in 1972, identified the following models of physician-patient interaction [4]: 1) the model of technical type (each party performs its functions, which are defined by a specific code (Hippocratic Oath, etc.). In this case the physician behaves like a scientist who must act impartially without taking into account the individual characteristics of each situation; 2) the model of sacral type (the authority of the doctor influences the patient). According to R. Nilson, the doctor's office has some aura of holiness for the patient, and the patient perceives the doctor as God; 3) model of collegial type (characterized by the cooperation of the doctor and the patient as two full partners). This model is considered as the most promising and meets the European criteria; 4) the model contract type (built on an agreement between the two parties that specifies which functions, rights and obligations each party is responsible for). The patient is informed of all stages of their treatment.

Taken to consider the limitations of the study, we consider it necessary to highlight this issue separately in future research, but it should be noted that in management science there are two important groups of interpersonal interaction: constructive (facilitates joint activity) and destructive (impedes joint activity).

So, in our view, "doctor-patient" interaction can be understood as the communication process and the subsequent joint activity of the doctor and the patient in the direction of disease prevention or during the treatment process in order to achieve efficiency in the fastest time while the indicator is measure of health of the patient.

The result of the reforms in Ukraine proves that medicine is gradually develops and achieves the new level, based on European standards. Europeans have already understood which methods should be used not only in medicine but also in staff training. In order to cope with the emotions of the patient, the doctor needs considerable professional communication skills. This is necessary to create a therapeutic alliance with the patient and engage him in effective complicity [5]. A

medical worker should have not only professional knowledge, but also skillfully use professional communication skills. However, each of us already has certain communication skills that have learned throughout the life. Unfortunately, it is not always perfect. Communication skills are an important part of medical education and the life of the doctor as a whole. So you need to learn to have skillful communication. Studies have shown that social effectiveness and ability to solve interpersonal problems directly depends on the mastery of communication skills [6].

The modern clinical exam used to assess the skills and professionalism of medical workers in most developed countries all around the World is the Objective Structured Clinical Examination (OSCE). The purpose of the exam is to evaluate such important competencies of the future physician as compliance with ethical standards, communication with the patient, involvement of the patient in the medical process, etc. One of the important tasks of the OSCE is to train medical professionals to deal with complex patients. It is important to learn specific communication techniques to deal with difficult situations in communication with patients in real life.

Physicians must deal with difficult communication situations, so it is convenient to develop workshops to train specific topics such as: bad news, obtain informed consent, handle difficult patients, and conduct conversations with family members regarding life or death decisions of a critically ill patient.

Modern specialists distinguish the main components for the cooperation of a doctor and a patient: support, understanding, respect, sympathy. So in the work of a modern doctor, HOW to do it is not less important than WHAT to do.

The Medical Marketing Agency explored the difference between a doctor's hard skills gained at a medical university and soft skills - a knowledge that can be used in practice to become a successful doctor. Ideally, certain attainment and skills synergize with each another. There are also basic qualities that need to be improved while working out the right communication skills with patients that also affect the financial performance of the doctor:

RI (Return Index), correct communication techniques are extremely important for patient return.

CSI (Customer Satisfaction Index), the purpose of admission is to improve CSI.

The use of communicative techniques (experience + proper communication) helps to improve the quality of the patient's objections and to neutralize the negative. It is important to answer the question of what result should be achieved and how it is expressed. Thus, it is possible to improve the image of both the doctor and the medical institution where he works.

Hit Ratio (Percentage of Success in Dealing with Denialing). Statistic shows that only 30% of cases are able to convince a patient for the first time. After using their own verbal and non-verbal methods for the first time, 60% of patients can be persuaded [7].

It should be noted that in the process of studying the basics of management, you can get the following skills and abilities: motivate to a certain activity yourself and others; use self-management methods; effectively manage individual and team changes; to think systematically; manage stress; manage projects; develop tactics and strategies; build interpersonal relationships; manage the communication process; have skills of listening; give negotiate effectively; use team building; manage conflicts; use verbal and non-verbal communication; provide feedback; do prioritize; manage time; make a decision; quality management, etc. [8].

All of these skills are necessary for a modern doctor. The activity of a manager is the interaction between people. It follows that an important management system and management process is human behaviour, human resources of communication, including such forms as disputes, tensions and conflicts.

The doctor must have additional knowledge to be a professional. A good doctor has the skills of communication, persuasion, managing time, adaptation, because of constantly changes that are happening and you need to be able to cope

with this, as well as have the skills of delegation and team building, and other skills mentioned earlier.

Carrying out adequate teaching of all these areas promotes the development of effective communication, and enriches the training of doctors, and results such as the following can be observed in their professional practice:

- Diminution of anxiety and depression in the patient.
- Increased patient satisfaction.
- Improve adherence to treatment.
- Greater resolution of symptoms.
- Improve the final results of the patient.
- Fewer searches for laboratory studies.
- Reduce the risk of a medical error.
- Reduce the number of claims for a medical arbitration.
- Reduce patient complaints.
- Improve doctor satisfaction.

In Ukraine, the sector of commercial medical services is steadily increasing, but due to the mentality, the population can't accept with the fact of paid medicine. Within medical institutions, the functions of the chief physician are transformed into managerial ones, which force them to look for ways of improving managerial qualification due to the demands of the growing market of medical services.

There is such a term as "medical management" - the application of a set of special principles, approaches, methods and means of management of healthcare organizations of different forms of ownership, which is aimed to meet the following goals: 1) maximizing profits from commercial medical activity; 2) improving the quality of life of the population; 3) achieving social harmony related to the exercise of the citizen's right to quality medical care; 4) increasing the availability of medical care [9]. But it is only partially relevant to primary care

physicians in the doctor-patient system, and more relevant to a head of the healthcare facility.

An effective medical management system based on the separation of powers of the head doctor and the director will increase the availability and quality of care. Implementation of business training of health care management personnel will allow development managerial potential and take clinics management to a new qualitative level. In this context, it should be noted that not only the chief physician but also the primary care physician must possess all of these considered skills.

It also should be noted that as far back as 1998, were made attempts to compare the skills of a doctor and a manager [10], but they rather separated a manager of a hospital and a doctor. Therefore, the implementation of an effective system for the practical acquisition of manager skills by modern physicians concerning interaction in the doctor-patient system is still a problematic issue, which causes the corresponding problems.

The professional lives of senior managers and doctors are usually different. The chief manager is unlikely to remain in the same post for more than five years, while being a highly qualified doctor is a norm sometimes throughout his all career. Therefore, over the years, most physicians have to contact a number of new managers in the departments. Therefore, the information above shows that the best option for a medical worker is to have managerial skills [11].

However, while the idea of developing health care management develops in Europe, Ukraine is looking for someone who will bring it to life. The shortage of medical managers, prepared according to international standards, is still relevant [12].

Using modern technology in the system of an education process

The implementation of modern methods in the system of teaching physicians should be aimed at the formation of management skills, which will allow building effective interaction in the system "doctor-patient". It is also advisable to propose the use of modern virtual technologies for this process. While not reducing the importance of theoretical training for students from different disciplines, it should

be noted that the problem of lack of practical knowledge and skills of university graduates is not new. As a rule, practical skills are limited only by one's own experience. This problem is related to many objective and subjective factors (short-term practice, size of organizations, etc.) [13, 14]. As a result, graduated students are not ready to interact effectively with the patient-doctor system in today's real-world environment. Figure 2 presents the introduction of VR technology into the learning process system.

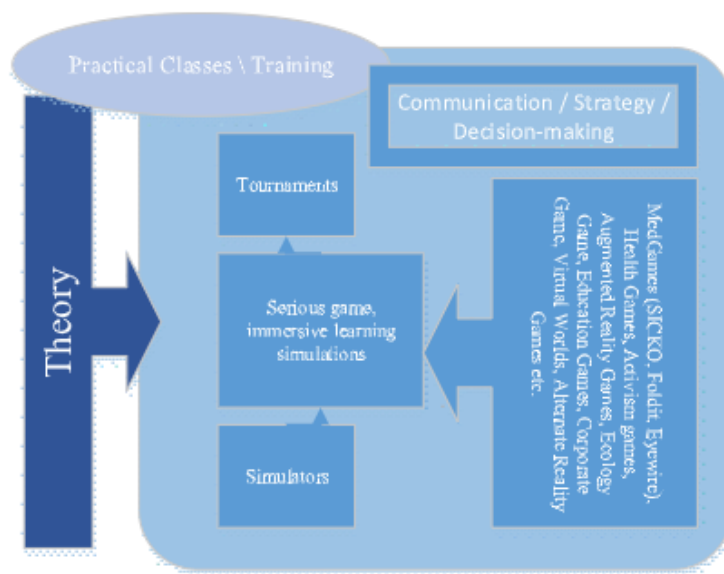


Figure 2. The place of VR technology in the system of an education process

Completed by the authors

This problem should be solved by actively engaging in a variety of training sessions close to the real world. At the same time, the university education process should be both useful and interesting, so we believe that learning through "games and simulators" can solve this problem, because the method is active with the ability to attract a wide range of students. This method is not new, but any simulator should be adapted to the appropriate specialty. There are not many studies about that in Ukraine, and most of them relate only to economic trends (also used mostly in foreign countries). It is important to propose such game in which players (listeners) during the training and study process have the opportunity

to manage the appropriate system (interaction, organization), such games and simulations will allow to use as methods of effective management of various establish through the implementation of management functions, and significantly reduce the time to gain the practical skills in the interaction in the "doctor-patient" system (having the right to make mistakes).

Thus, it would be advisable to introduce a course in the process of training modern doctors to develop appropriate competencies in the direction of building effective communication in the "doctor-patient" system. We believe that it makes sense for future health care professionals to study certain aspects of management basics. The list of disciplines at Ukrainian educational institutions confirms that modern medical universities do not introduce anything similar to OSCE into the teaching process yet.

Conclusions.

After a detailed research of the functioning of the health care system of Ukraine and its comparison with the Spanish system, the main problematic issues that need to be resolved were identified, namely: lack of effective interaction in the "doctor-patient" system; lack of necessary skills to improve it; absence of effective teaching methods to acquire the needed competencies.

Using of virtual technologies in the training of modern primary care physicians will allow them to get the necessary management skills. Noticed will help to build a constructive communication process between doctor and patient and increase satisfaction with the health care system of Ukraine and the level of health of the nation.

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