

Ethical considerations in telemedicine

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INTRODUCTION

The Information and Communication Technologies have been present throughout the history of humanity and have had an essential function in the dynamic change of the social, cultural and economic, for how much they have generated and accompanied the evolution and revolution of the innovations of society, in relation to communications and information when passing from oral language to new technologies of massive diffusion, promoting through the Internet, the exchange of ideas between people located in different parts of the planet, contributing with it to a greater global fluidity of the vision of the world regardless of the culture to which they belong¹.

In the field of health, these technological advances have allowed the evolution and modification of paradigms not only in the relationships between individuals, but also in the provision of health services. This is how the media in September 2001 could evidence the first transatlantic surgery performed by a surgeon remotely manipulating from New York, the arm of a robot located in an operating room in Strasbourg, more than 14,000 km away, to extract the gallbladder of a 68-year-old patient who was discharged two days after the operation².

This evolution and modification between the relations established between health personnel and users and the form of provision of health services in real time or in deferred time refer to the material object of ethics that are human acts and their formal object that is the goodness or evil of such acts, for which reason ethics cannot be detached from medical practice, be it in its traditional form or especially in its virtual form.

Faced with the change in the practice of professional practice in these different contexts, it is necessary to reach a consensus on acceptable patterns of conduct, as well as a procedural and legal framework that guarantees the efficient, effective and efficient achievement of quality care for users.

Telemedicine, applications, advantages and limitations

The World Health Organization (WHO) defines Telemedicine as "Providing health services, where distance is a critical factor, by any health professional, using new communication technologies for the valid exchange of information in the diagnosis, treatment and prevention of disease or injury, research and evaluation, and continuing education of health providers, all with the interest of improving the health of individuals and their communities"³.

Its application is multiple, and can be in real time, or synchronous mode, or deferred time, or asynchronous mode. It is used in healthcare processes such as: teleconsultation (radiology, robotic surgery, telederma, retinography, telepsychiatry, monitoring, etc.). To support continuity of care: transmission, analytical information, shared digital history, etc. In User information: access to documents, search engines, web, electronic consultancy, etc. In professional training: documentary bases (clinical practice guides or MBE), collaborative work in research, group work (videoconference, task coordination, cross-checking or virtual clinical sessions), virtual simulation, etc⁴⁻⁵.

The advantages of Telemedicine can be seen in terms of the user, the health personnel or from the perspective of health services.

Depending on the user, there are advantages: access to diagnoses and treatments in a more agile way; the possibility of making consultations with specialists; the reduction of waiting time; the opportunity to obtain integral attention from the first moment; the avoidance of inconvenient displacements for patients and relatives.

Depending on the health personnel: the possibility of having interconsultations with specialists; the possibility of avoiding inconvenient journeys; having more elements of judgment when making decisions; the opportunity to improve the quality of images in order to be able to diagnose;

the improvement of information transmission circuits, avoiding the loss of reports.

The advantages for health services are: the reduction of the risk of loss of images; obtaining quicker and more precise diagnoses and treatments; timely communication between different services; eliminating the duplication of information; ensuring the efficiency of equipment and services; improving economy in transport costs; better use and utilization of resources; generating easier scientific and statistical analyses; improving public health management; the opportunity to have additional resources for education.

These are potential drawbacks of telemedicine: If the ICTs used are not adequate, there is a risk that certain images transmitted by telemedicine may be less accurate than the original images; aspects related to security and confidentiality in the doctor-patient relationship through interfaces; loss of warmth and quality of care; increased demand for specialists; The lack of available resources to cover the volume of patient care; the lack of viable services; the risk of loss of data or images due to data compression to increase transmission speed; the lack of technology and infrastructure developed to support the implementation of telemedicine on a large scale⁵.

Ethical considerations in telemedicine

The dizzying development of science and technology has been reflected by a constant growth in the volumes of information as well as access to them. Telemedicine is a technology of recent use, is a tool that promises to provide for the solution of some health problems existing today. However, its implementation and development must be based on national and international regulations that integrate ethical aspects that guarantee respect for the human rights of both health service users and providers⁶.

Without a specific regulation, the development of information technology and medical technology in its application can lead to the vulnerability of bioethical principles in medical care. This is how Bioethics, as applied Ethics, in America arises in a context of restlessness, and critical response, regarding a certain way of understanding scientific development, and its consequences, not only for the human being, but also, and especially, for its environment⁷.

Bioethics is born as a product of scientific-technological advances, the medicalization of life, the biomedical revolution, the possibility of remodeling human genetics and the abuses committed by research on human beings⁸.

Potter denounces the ideology underlying the dominant concept of progress: the existence of a radical division between scientific knowledge (biological facts) and humanistic knowledge (ethical values), between experimental sciences and those of the spirit⁹.

It therefore proposes a new discipline aimed at regulat-

ing the use of new technologies, seeking to promote the survival of ecosystems and, with it, of the human species itself. By presupposing that the human being is part of nature, he considers that there is a threat when the environment or the person is reduced to the consideration of a manipulable object.

This is how it is in his already mentioned work *Bioethics. Bridge to the future*, tries to establish a nexus or a "bridge" between the two fields of knowledge, the scientific and the moral-humanistic⁹.

At present, the development model and the unbridled race towards progress and growth, as a product of techno-scientific advances, have allowed humanity to lose its way, with a crisis of values, with economic, political and techno-scientific power prevailing over man and his environment. That is why it is important that Ethics as a rational science is not only this dialogical space that formulates, articulates or resolves the dilemmas that are posed in relation to life, health or the environment but that offers an ethical guide for the professionals involved in the technological development and health informatics, that establishes reference principles to evaluate the conduct of these professionals and that offers to the user a declaration of the ethical considerations that must mold the conduct of its professional members¹⁰⁻¹¹.

This ethic applied as a product of what make the professional concrete must be shared by a pluralistic society, so that commitment and solidarity must prevail as the values of a real community and open to multiculturalism.

A code of ethics for informatics in medicine should consist of a part containing the fundamental and internationally accepted ethical principles which are: autonomy, equality and justice, beneficence, non-injury, principle of impossibility, integrity, followed by the general principles of informatics ethics which are derived from applying the fundamental ethical principles in the collection, processing, storage, communication, use, manipulation and electronic access of medical information in general. And as a second part, it should contain the rules of ethical conduct for professionals involved in the subject of health information¹².

The general principles of Computer Ethics in Medicine that are derived from the general ethical principles are the following: principle of privacy and disposition of information, principle of transparency, principle of security, principle of access, principle of legitimate safeguard, principle of less invasive alternative, principle of responsibility¹³.

That is why a code of ethics should be: clear, unambiguous and easily applicable in practice¹⁰.

The rules of ethical conduct for health informatics professionals should consider six general titles that demarcate the domain of ethical relationships that are established between professionals and the specific interlocutor. These general titles are: duties focused on subjects; duties towards health

professionals; duties towards institutions/employers; duties towards society; duties towards themselves; duties towards the profession¹⁰.

CONCLUSION

Although it is true that telemedicine has been considered as a practice that contributes to access services to populations in order to achieve equity, it is indispensable to consider that this practice should be developed under codes of ethics, protocols, procedures and legal frameworks that guarantee not only the provision of quality care, but also consider the importance of working on an integral health concept as a fundamental dimension of human life and not simply be seen as a service offered by a specialized sector to populations that cannot access it.

The ethical limit of the scientific activity of a professional of any specialty, in particular those whose activity is related to the life and intimacy of people can be set within the framework of respect for their human rights.

It is necessary the coexistence of systems of deontological, legal and ethical rules that regulate the conduct of health service providers to contribute to the creation of a regulatory framework that contributes to cohesion and guarantees the existence of a social control that can be carried out at different levels.

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