INTERFERENCES BETWEEN LAW AND TECHNOLOGY IN MEDICINE

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Abstract

The rapid development of medical technology has increasingly influenced healthcare practice, governance, and professional responsibility. The intersection of medicine and law reflects the close relationship between clinical standards, medical ethics, and legal regulation. While medical practice establishes standards for appropriate patient care, medical law defines the legal framework governing professional conduct and the consequences of non-compliance. Understanding these interrelationships is essential for promoting ethical medical practice, protecting patients' rights, and ensuring professional accountability in the context of technological advancement.

Keywords*: medicine, technology, law, transformations, advancement, drugs, medical progress, security.*

The development and advancement of information collection and processing systems have led to the modernization of access systems. Thus, in medicine, security systems based on new technologies have recently emerged as a viable, lower-cost alternative to systems based on magnetic cards, barcodes, or passwords.

A widespread adoption within a short period of time is unlikely. Consumers may be reluctant to adopt the technology if they are required to pay extra for it while the benefits do not adequately compensate for the additional cost. Computers have already become an integral part of our everyday lives, and most transactions, from signing contracts to making purchases and completing tax refund forms, are carried out digitally. This creates the appropriate environment for biometric companies to hope that their products will soon become ubiquitous and indispensable (Eţco, 2006).

Medical technology exerts a major influence on everyday life and is closely correlated with the law. In some cases, these influences are accepted as necessary; in others, they are regarded as a feature of the era in which we live, while there are also some other cases in which they are viewed with scepticism.

Medical progress does not only involve the development of new medicines and surgical procedures, but also the transfer of certain medical services, facilities, and methods of health monitoring into a digital, virtual, Internet-connected environment, dependent on mobile devices and making use of the vast resources of digital technology. Technology in medicine, as a whole, means the ability to collect, process, and use large volumes of data, which will radically transform this field by providing access to better, less costly, and, at the same time, more efficient and legally sound medical services (Baciu & Pădure, 2006).

Technology advances from one day to the next, and a large part of the attention of mass media and the general public is focused on the newest inventions, gadgets, and innovations launched on the market. Nevertheless, history teaches us that most radical transformations in human societies do not occur immediately after the emergence of an invention, but only when such innovations become sufficiently widespread to have a systemic impact (Ungurean, 2001).

Legal principles to be observed by medical institutions

The legal principles that should be observed by medical institutions are the following:

– Guaranteeing the right to a second opinion regarding the same medical condition. The patient has the right to seek the opinion of two or more physicians concerning the same health problem. Similarly, a healthcare professional has the right to seek the opinion of one or more colleagues regarding the health problems of their patient. In the latter case, the physician is required to respect the patient's confidential information.

– **Self-determination.** This principle assumes that the patient is the primary decision-maker with regard to their own health. The patient's decisions must be made on the basis of informed consent following appropriate information provided by the physician. The principle implies that the patient has the right to choose the medical institution and their physician and, where possible, to choose the methods of diagnosis and treatment.

– **The inviolability and integrity of the human body.** This principle assumes that any medical intervention may take place only with the patient's consent, provided that it is in the patient's interests and is not prohibited by law. A physician may not act upon a patient to the patient's detriment or without a reasonable prospect of treating the disease (Ungurean, 1993).

Throughout history, innovations that have enabled the extension of human longevity have been technological rather than medical in nature. For example, the development of sewage systems halted the spread of numerous diseases and dramatically reduced premature mortality.

By contrast, in recent times, medical progress has consisted primarily of the development of new medicines and surgical procedures. In the coming years, information technology will form the basis of the progress achieved in medicine. The ability to collect, process, and use large volumes of data will radically transform this field, providing the public with access to better and less costly medical services that are also more efficient (Beliş, 1995).

Technologies in medicine are currently being developed across contemporary scientific fields. The possibilities, approaches, and solutions offered by applications based on virtual reality are immense. Innovations in information technology, together with the reduced costs of hardware and software products, will refine and enhance the efficiency, expertise, and competence of medical practice, with the aim of ensuring patient comfort and an appropriate and safe therapeutic approach.

The most obvious innovative technologies that will transform medical practice are, undoubtedly, augmented reality and virtual reality. Medical devices using new technologies will provide people with access to an alternative environment. The appeal of these new technologies is extremely powerful, while the potential that medical-product companies can exploit is enormous.

Virtual experiences are extremely intense and difficult to forget, particularly because they are not yet accessible to everyone. In a world saturated with information, the powerful experiences that innovative technologies and augmented reality can provide may radically change the relationship with patients, maintaining their interest in certain products or services and fostering patient loyalty (Baciu, 1995).

There are far more connections between law and medicine than we are sometimes tempted to believe. The law accompanies the human being from before birth, that is, from conception, and sometimes even beyond death. Who else does this? Medicine. This is why there are countless bridges connecting law and medicine. I believe these are the only fields in which the human being is followed from conception until beyond the transition into non-existence or eternity.

The use of devices that measure bodily functions, provide important information about a patient's metabolism, and thereby the fact that they help physicians establish a correct diagnosis is no longer a novelty. Sensors are also used in clinical trials conducted by pharmaceutical companies, where everything depends on how this patient data is collected and interpreted (Baciu, 2013; Poenaru, 1994).

No one can be forced to become a physician. No one dreams of becoming a patient. No patient agrees to place their life in the hands of a physician. Not every death of a patient can be attributed to the physician. Not every medical error can remain without consequences (Tintiuc & Grossu, 2007).

Today, technology in medicine significantly influences numerous fields. However, some of the areas that affect our daily lives the most, including medicine, have not yet experienced its impact to the same extent. This is expected to change in the coming years, as technology is likely to bring about radical and unprecedented changes in medicine compared with the developments of the last century.

Ultimately, above all else, medicine is a profession based on trust, while the preventive and educational role of the legal norm is to protect public confidence in the fact that medical practice will appropriately protect and promote the highest social values: health and life.

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