



**Tehran University of Medical Sciences**

**School of Medicine**

**Title:**

**Investigating Ethical Considerations in Providing Medical Services by Using the Method of New Communication Technologies in the Field of Electronic Health**

**A thesis submitted as a partial fulfillment of the requirements for Doctor of Philosophy (Ph. D) Degree**

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**Abstract**

# **Investigating Ethical Considerations in Providing Medical Services by Using the Method of New Communication Technologies in the Field of Electronic Health**

## **Introduction**

Telemedicine is a method that owes its birth to advanced telecommunication systems. Telecommunications has transformed all aspects of human life, including medical services.

In this method, most medical and health services can be mentioned to the client by telemedicine. Telemedicine is the most important and main part of e-health. E-health is a new way of providing health, diagnostic and therapeutic care, using modern electronic systems and communication methods. In this method, various services such as creating electronic records for the patient, telemedicine, counseling, monitoring, training, and informing the telemedicine staff are provided.

At first, it is difficult and unfamiliar for patients to accept this treatment because patients have been meeting their doctor or surgeon closely for many years. However, now they are faced with a situation where there is no news of the presence of a doctor; of course, telemedicine does cover not only clinical issues but also affects all areas of medical science, from education to management and health issues.

This method has been able to open its place in the field of health over time; naturally, this method has created new legal and moral issues that to solve these issues, the need for a legal and moral guide is well felt. This study seeks to examine the main challenges in this area and propose a preliminary draft for ethical considerations in telemedicine.

## **Research Method**

In this research, two types of library and qualitative studies have been used, which ultimately led to developing a preliminary draft for ethical considerations in telemedicine.

**Library Studies:** It was conducted using a range of keywords through an Internet search of authoritative scientific sources. Also, books, articles, and thesis published in this field were reviewed, which eventually led to the preparation of a text to guide the interview questions of this research. These studies also examined the methods of other researchers in other parts of the world to obtain the most important ethical challenges and develop guidelines. Finally, the main guidelines for telemedicine were reviewed.

**Qualitative studies:** The method of data collection in this study was a semi-structured and purposeful interview with the following four groups:

A- Doctors with experience in telemedicine, B- Patients with experience in telemedicine, C- Experts in medical ethics, D- Experts in medical informatics

After 12 interviews, those were carefully conducted, then the items obtained from the interviews were extracted, and the proposed codes were written in consultation with the professors. These codes were reviewed in 2 expert panel discussion sessions with invited experts. Finally, a draft proposal for ethical considerations in telemedicine was written, including an introduction, five general considerations, and 20 paragraphs. This study was conducted in the spring of 2018 to 2021 in the Department of Medical Ethics of Tehran University of Medical Sciences.

## **Findings**

**Library studies:** To conduct library studies according to keywords, a regular and codified search was conducted in a reputable database in English and Persian, which resulted in familiarity with the views of thinkers and researchers on ethical challenges in telemedicine, the main ones of which are related to the problems with doctor-patient communication, informed consent, confidentiality and privacy, and insurance and compensation mechanisms. The guidelines of the World Medical Association, the Standing Association of Doctors of Europe, and Singapore on ethical considerations regarding telemedicine were also examined.

**Qualitative studies:** According to the studies conducted and the extraction of the most important ethical challenges of the telemedicine and its advantages and limitations, a questionnaire was designed with six main questions, and 12 people were interviewed. From the analysis of interviews, 37 items were obtained, divided into two categories of telemedicine advantages and limitations. For the telemedicine advantages category, three subcategories of increased autonomy and dignity, more profitability, expansion of justice were considered. For telemedicine limitations, four subcategories of impairment to standard treatment, disclosure of secrets, forgery, reduction of justice were considered. Then, according to the obtained concepts, with the guidance of professors, a draft for the ethical considerations of telemedicine was written in an introduction and 20 paragraphs. Then, in the five stages of the expert panel discussion, medical ethicists and doctors with experience in telemedicine and medical informatics were examined and approved in the form of a statement containing one introduction, five general considerations, and 20 paragraphs.

## **Discussion**

One of the upstream documents on the ethical considerations of the Charter of Patients' Rights in Iran is to adapt this study to the Charter of Patients' Rights to avoid contradictions. Also, to examine the strengths and weaknesses of the statement issued in this study, this statement was adapted with the guidelines of the World Medical Association, the Standing Association of Doctors of Europe and Singapore in telemedicine, and further suggestions were made for further studies.

**Keywords:** Telemedicine, E-Health, Mobile Health, Ethics, Code, Guideline.