International Journal of Education, Modern Management, Applied Science & Social Science (IJEMMASSS)
ISSN : 2581-9925, Impact Factor: 6.882, Volume 04, No. 03(II), July - September, 2022, pp. 15-18

E-MEDICINE AND ITS LEGAL ISSUES

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ABSTRACT

Information and communication technologies (ICT) have been continuously developing giving rise to various technologies which are used in almost all walks of life. Information and communication technologies have captured the social aspect of individuals such as mode of communication and information as well as the service industry is known as 'social informatics'. Social informatics has changed the social picture including the practice in medicine. The ICT development has led to dramatic changes in the field of medical practice such as introduction of online medical consultation, online pharmacies, telemedicine, medical information system, etc. These kinds of informatics have offered great choices to individuals as the medical services are available at one click. This kind of transformation in medical practice is due to different applications of e-medicine. E-medicine is not just providing medical services online but also includes providing information. Telemedicine involves the use of ICT to deliver health care to patients abroad. The main legal concern relating to telemedicine is the jurisdiction governing such exchange of information and the right to practice of the doctors. The next most popular mode of e-medicine is online pharmacy. There are many internet pharmacies that not only provide medicines online but also provide online consultation as well. The conduct of such pharmacies will be regulated by which law and what will be consequences of wrong consultation are few of the major challenges. The paper will focus on the various modes and usages of e-medicine and the likely consequences and the legal issues around it. The paper will also deal with the privacy and confidentiality issues which are the integral part of medical ethics as the doctor- patient relationship is of fiduciary nature. The technology used in e-medicine may be advanced but it should also follow certain medical ethics.

Keywords: *E-medicine, Health Care, Social Impact, Medical Ethics.*

Introduction

Information and communication technologies (ICT) have been continuously developing giving rise to various technologies which are used in almost all walks of life. Information and communication technologies have captured the social aspect of individuals such as mode of communication and information as well as the service industry is known as 'social informatics'. Social informatics has changed the social picture including the practice in medicine.

The ICT development has led to dramatic changes in the field of medical practice such as introduction of online medical consultation, online pharmacies, telemedicine, medical information system, etc. These kinds of informatics have offered great choices to individuals as the medical services are available at one click. This kind of transformation in medical practice is due to different applications of e-medicine.

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E-Medicine

E-medicine is not just providing medical services online but also includes providing information. Telemedicine involves the use of ICT to deliver health care to patients abroad. Physicians use telemedicine for digital imaging transmission, video consultations, and remote medical signals. World Health Organization has also defined telemedicine as "the delivery of healthcare services where distance is a critical factor by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of diseases and injuries, research and evaluation and for continuing education of healthcare providers all in the interest of the advancing the health of individuals and their communities. (WHO, 2010)" This has helped in providing healthcare service to the rural as well as the underserved communities of our society. For instance the project taken up by Government of Luxembourg and United Nations Population Funding 2010 has helped in reducing the infant and maternal mortality in Mongolia especially the rural and remote parts of the country.

There are many international organizations working for the development of telemedicine so that e-medicine can be useful for providing not just short term treatment but for long term as well. WHO is of the opinion that there needs to be a national agency to regulate and develop this field. There is also a need felt to have national policy to be formulated in order to regulate and take care of the rights and liabilities which may arise during such online interaction between the patients and the healthcare service providers. E-medicine is of two types, first based on transfer of information and the second one is interaction based services. This has led to wide scope of this area of medicine. The majority of e medicine services are focusing on the diagnosis and clinical management of the patients. In addition to this there is advancement of technology which has helped in gathering more data by use of biometric measuring devices which help in monitoring heart rate, blood pressure, sugar levels and other parameters needed for diagnosis. This technological advancement has led to better management of patient's online and even better prediction of health parameters just like face to face interaction between the doctor and patient. This revolution has given rise to a new industry which is slowly diverting individuals away from hospitals or clinics to comfort of their homes. This dynamic nature of e medicine has saved many lives during the COVID pandemic and people have realized the need and use of this new cutting age technological advantage.

Low cost e medical services have made healthcare more feasible, clinically useful not just for patients but also for the doctors. It is more sustainable and helps even long distant specialist diagnose and treat patients without wasting time.

Cost efficiency of e-medicine is still an issue due to over head costs and lack on technical connectivity. The systems used are still complex and much of research and development is going on. Hence there are chances of lapses which may trigger problems hence the liability of the service providers needs to be dealt by the national policy.

In India, Department of Electronics and Information Technology (DEITY), Ministry of Communications and Information Technology (MCIT), Government of India: DEITY and MCIT are among the first few to develop and implement Telemedicine technology in support of Healthcare department. DEITY with the help of its laboratories has implemented the pilot projects using either VPN (Virtual Private Network) or ISDN (Integrated Services Digital Network) technology, in the state of Himachal Pradesh, Punjab, North Eastern States and West Bengal. Under their National flagship project, initiatives are taken to bring every Panchayat (the smallest division of state administration), in the Broadband Connectivity (2mbps-100mbps) i.e. connecting Panchayats with fiber optics. These pilot projects will help in making the connectivity more strong and accessible to remote parts of the country.

Jurisdiction of Medical Practice

The main legal concern relating to telemedicine is the jurisdiction governing such exchange of information and the right to practice of the doctors. There is no international legal framework that allows healthcare providers to provide service in different countries. The laws dealing with medicine and the medical practitioners are national laws hence the qualification and the right to practice will be breached by such international e-medicine service providers.

Regulation of Online Pharmacy and Consultation Services by Them

The next most popular mode of e-medicine is online pharmacy. There are many internet pharmacies that not only provide medicines online but also provide online consultation as well. The conduct of such pharmacies will be regulated by which law and what will be consequences of wrong

consultation are few of the major challenges. The new guidelines have made it mandatory that for any chronic disease the prescription should be made available at the time of purchase of such medicine and the prescription by the doctor shall be valid for 6 months only. The service providers in order to give a helping hand do have online medical practitioners made available in case of lapse of time period. The question arises whether such consultation should be allowed as in the guidelines it is clearly mentioned that online consultation for chronic diseases shall not be provided. The original medical practitioner who had earlier prescribed the medicine only can update the prescription. This kind of practices may lead to severe problem for the patient and there is no special legal provision in the current legal framework which can provide any kind of remedy to the aggrieved party i.e. the patient. Hence the legal framework needs to look into this loophole in the guidelines related to e-medicine.

Sports and Health Apps

The mobile 4 health apps categorized to be used as healthy living apps included diet plans and inclusion of exercise logs. Various telehealth applications also focus on the setting of reminders and alerts. These apps assist in appointment generation, maintenance, and medication reminders. Telemedicine and eHealth applications have also diversified to function as productivity enhancers for the healthcare providers. These applications aim to do so by assisting in scheduling and assessment of the health records of the patients. Most of these sports health apps are wearable and detect activities of the individual by using GPS location and motion detection. There have been many reports of unauthorized breach of personal data and unauthorized sharing of information by the service provider. Hence need of regulation and fixation of liability is important merely relying on the Indian Contract Act and Information Technology Act is found to be insufficient.

Telenursing

Telenursing is one more such service which is part and parcel of e-medicine. This service includes online consultation and referral service online. This reduces on site visits by the patient. Educating the patient on the diagnosis and clinical management of health is the vital part of this service.

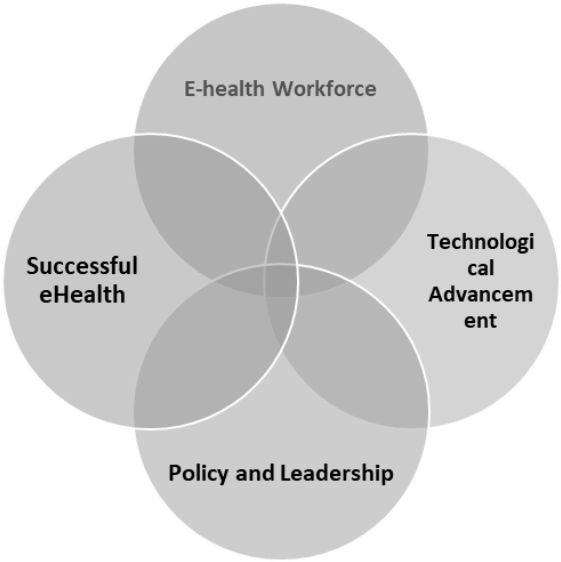
Right to Privacy and Confidentiality

Another big issue in e- medicine is the issue relating to the privacy and confidentiality which is the integral part of medical ethics as the doctor- patient relationship is of fiduciary nature. The technology used in e-medicine may be advanced but it should also follow certain medical ethics. Entire e- medicine is based on data processing and storage. There is need for securing the data relating to medicine and the diagnosis for individuals availing there e- services. Information technology laws are not sufficient to take care of data relating to e medicine hence the policy which will be framed for the regulation of e-medicine will also need to regulate and impose liability on the service providers for any kind of data breach.

Conclusion

Planning and implementation of e-medicine services require highly technical and well collaborate efforts from the government, service providers and the other stakeholders. Transparency and cumulative efforts are necessary. The national policy need to focus on following points:

- Principle of confidentiality
- Principle of privacy
- Qualification of medical practitioner and other health care workforce providing e-services
- Liability of medical practitioner
- Liability of Service Provider
- Data Protection
- Cross border jurisdiction of Practitioners
- Cross border jurisdiction liability of Practitioners and the service providers
- Availability of medicines on online pharmacy apps which may not be permitted in the country but available off shores app delivering in the country.
- National agency for the implementation of the policy and co ordination with other national and local agencies for better implementation of laws.



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