

Use of information technology in healthcare sector for improving outcomes

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ABSTRACT

With revolutionary success of internet and mobile usage in India, use of information technology for healthcare promotion by pharmaceutical industry and other healthcare sectors is increasing. Information technology provides an unlimited opportunity for promoting correct healthcare practices for prevention of certain diseases, providing information for maintaining health and other suitable information to the expected target audience. Information technology provides numerous advantages including extended reach, quick dissemination of facts, providing unlimited amount of information and also eliminates the need of large number of manual resources. There is enormous potential for improving the awareness about healthcare through digital media and information technology. However, with its increasing usage, there are some challenges, responsibilities and precautions which need to be considered while using information technology as a resource for healthcare promotion. This article discusses the use of information technology in healthcare promotion along with the challenges in its usage.

Keywords: Information technology, Healthcare promotion, Awareness

INTRODUCTION

Use of information technology and communication is beneficial in the success of any industry including healthcare sector. In India, during the last decade there has been significant improvement in the awareness and usage of internet and mobiles across population. Internet access has improved due to the availability of computers at work stations and in homes. Availability of portable devices with internet access and ease of internet access on mobile phones has also contributed to its higher usage.

Traditional methods of using print media for the promotion has some limitations such as need of manpower to distribute the information, limited scope for creativity, and restriction on the amount of information to be included in the promotional input. Similarly, time required for creation, dissemination and cost are the other limiting factors for use of print media.

Many patients as well as doctors have easy access to the information available on internet. There is an enormous

opportunity for the healthcare sector for promoting information about health and disease to the targeted population using information technology and digital media. Different platforms including internet, mobile software applications, teleconferencing/video conferencing can be successfully used for disseminating the healthcare information to patients and healthcare professionals.

INTERNET BASED INFORMATION

The Internet gives an easy access to health information to the patients, allows healthcare providers to update their current knowledge, patients get more confidence to discuss their concerns with healthcare provider, understand their condition better, and information gained also helps in adhering to the recommendations or advice given by the physician.¹

On the other hand, sometimes, it may pose challenge to the healthcare practitioner in terms of time to explain all the concerns raised by the patient and relatives based on some

information read somewhere which may not be relevant to the patient's condition and take lot of time from physician's practice. However, the benefits far exceed this challenge on a larger scale.

The information can be disseminated through individual emails, mass emails or creating different groups based on predefined criteria. The healthcare related websites are useful sources of information for spreading awareness or updating knowledge. The websites can be designed or updated for interactive communication with experts which gives chance for dialogue and resolving the doubts, if required.

USE OF SOCIAL MEDIA

Social media can be effectively used for spreading awareness about the disease and healthy lifestyles. Patient advocacy groups may help improve the compliance to the therapy as patients may get connected with other patients and understand how successfully other patients have overcome their problems.

MOBILE BASED APPLICATIONS

Mobile based application has advantage of eliminating the need to be restricted to a specific geographic location² and portability. Mobile based applications are other potential sources for disseminating the healthcare related information to both patient as well as healthcare professionals. Healthcare sector can make use of such applications for spreading awareness about the disease, do's and don'ts in case of specific disease for the patient and updated information on the drugs and diseases for the doctors.

OTHER METHODS

Unlike print media, telecommunication and video conferences provide an opportunity of dialogue.

The virtual meetings organized with use of information technology can have positive impact.³ In recent times, Kabrhel et al.⁴ have introduced a novel concept of pulmonary embolism response team (PERT) for the management of severe pulmonary embolism. In this approach, an on-call PERT doctor calls an online meeting of members from a multi-specialty team of cardiology, emergency medicine, vascular medicine, cardiac surgery, and pulmonary/critical care experts using software. The members discuss the case, viewing patient data and radiological report using computer or mobile device. This concept innovatively and successfully utilizes the information technology support which shows the potential scope for use of information technology in other therapeutic areas as well.

ADVANTAGES OF INFORMATION TECHNOLOGY

The main advantage of information technology in spreading healthcare awareness is ease of reaching

large population in short time. Another advantage is that people can use media at their leisure while in one-to-one communication, the person has to match the time of the healthcare provider; which may involve spending an extra time to reach the healthcare provider and also the waiting period required in some cases. Thus, sparing of time and cost are the other benefits of use of information technology.

The information technology helps to overcome the challenge of shortage of healthcare workers at least in spreading the awareness about health and disease.

With the available limited resources of manpower and need to cover large population, there are chances of errors in communicating the right messages or inadequate delivery of message. The media can play an excellent role in providing complete delivery of right messages. The amount of information provided through information technology can be unlimited.

LIMITATIONS AND PRECAUTIONS WHILE USING INFORMATION TECHNOLOGY IN HEALTHCARE

In India, one of the limitations for dissemination of healthcare message is a language barrier. With different dialects in different states, the information needs to be translated in the local language which may not be feasible in every case.

With the availability and exposure to multiple resources, there is a possibility of overburdening of the information on the consumer i.e., patient.

Measures should be taken to validate the information before making it available to general population as patients may sometimes blindly follow the information without cross checking with their healthcare providers.

If computer programs are to be used for healthcare message delivery, they should be simple, easy to use, and should be accessible and compatible with commonly used gadgets.³

Precautions and measures for maintaining confidentiality and data privacy should be taken, if the identifiable information of patient is collected.

India has still not reached the stage where information technology is the first preferred method of receiving promotional information. A study⁵ conducted in a tertiary care hospital in Mumbai, for understating the physician's opinion about pharmaceutical promotional material showed that 41.07% physicians prefer promotion using print media like pamphlets, and leave behind literature versus 24.64% prefer promotion using an electronic media such

as audiovisual aids, emails, CD/DVDs, etc. This may be a surprising finding for the pharmaceutical companies to take note of, in light of efforts being made for increasing the use of electronic media for promotional purpose. The reasons for not preferring electronic media needs to be evaluated and addressed, if use of electronic media as a promotional input has to be improved.

CONCLUSION

Information technology usage has improved in the healthcare sector over last few years; however its potential is still to be explored to the fullest. Innovative and creative thinking can possibly further enhance usage in coming years. Information technology is boon for healthcare sector if correctly used. It has significant potential for reaching healthcare professionals, improving patient awareness and in turn for improving societal health.

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