Online Pharmacy: A Breakthrough Venture

Pooja Gupta, Sushil Raghunath Mokashi*

Department of Pharmacy, IIHMR University, Jaipur, India

Review Article

*For Correspondence:

Sushil Raghunath Mokashi, Department of Pharmacy, IIHMR University, Jaipur, India

E-mail: sushil.j19@iihmr.in

ABSTRACT

An online pharmacy which is also known as internet pharmacy, e-pharmacy is internet-based vendor that sells medicines. The term named as online pharmacies and online sale of medicines has been in vogue worldwide for last two decades due to its convenience. The Indian Pharmaceutical Council described online pharmacies as the registered pharmacy which deals with selling and supply of medicine and they also provide other healthcare services over the internet. The indian healthcare market which is growing at very good pace and currently both online and offline pharmacies are doing great business. However, online pharmacies offer better pricing than offline stores with increased access, lower transaction and product cost and most importantly convenience for consumers. They provide accessibility to people having limited mobility and people in remote areas. The prime objective to provide medi-alerts (personalised medicine reminder service), discounts, quick home delivery and validation of prescription through licensed pharmacists which gives information about substitutes and adverse effect about the drug. Most of these online stores can also provide medication without any prescription or any physical diagnosis by physician. In the age of internet, the amount of information for everything is so easily available, by this consumer or a patient can have access to huge and accurate information about a drug or medicine. However, india is still struggling when it comes to make policies for online pharmacy stores, moreover there are no fixed policies for these online pharmacy stores. On the other hand, Indian government can work on ground level, where at first, they can adapt some rock-hard policies and laws which can help to regulate these online pharmacy stores in a modulated way.

INTRODUCTION

The new era of online pharmacies refers to handling of prescription without physical examination or even a visit to the physician clinic. Amongst the many commercial activities that are developing in this environment are online pharmacies (e-pharmacies, internet pharmacies) which deals with selling and supply of medicine and provide other healthcare services over the internet. Some pharmacies only dispense drug with a valid prescription which means dispensing of prescription only drugs, while some provides online consultation for prescribing and consulting medicines, while other dispense medication without prescription over the internet [1]. Those pharmacies which dispense medication without prescription over the internet are termed as online pharmacies which act as a second opinion or second doctor for despairing patients. Also, it gives insight into patient healthcare problem along with proper consultation of drug that could cure them. The internet provides consumers and patients access over a large amount of helpful and even accurate drug and health coverage. For this many community-based pharmacy have extended their healthcare services online to provide prescription-filling access to those patients who might have trouble to reach pharmacy. For that the online pharmacies of these companies handle prescription, provide consultation along with the information and dispense the prescription along with necessary information about substitutes and adverse effect about the drug. These pharmacy sites also provide valuable drug-drug interaction along with precaution to be taken as a part of their commitment to provide effective health care to their patients. However, a new concept of online pharmacy has evolved on the internet which provide prescription medicines to patients based on online questionnaire and not on a physical examination or office visit with health care professionals.

LITERATURE REVIEW

Future of online pharmacy

As internet-based technologies are evolving continuously day by day, pharmacists need to stay up to date with those applications that can further impact the profession [2]. For example, electronic prescribing in which uploading your prescription over the internet or filling questionnaire on the website portal based on your health problem is expected to become much more common in the next decades. Other emerging internet-based applications like tele pharmacy and the use of Electronic Medical Records (EMR), also thriving for rapid growth.

E-prescribing

The electronic prescribing or e-prescribing is a technological framework which deals with electronic generation, transmission and filling of a prescription with the scanned copy of prescription which is prescribed by registered medical practitioner which is taking the place of paper and faxed prescription. The experts in the healthcare have been predicting the arrival of e-prescribing for a long time. In which physician send the prescription over the internet or other telecommunication channels directly to the patient's chosen pharmacy. The best e-prescribing products require only three touches on PDA to generate a prescription. The first touch includes the selection of patient's name from a preloaded database [3]. A second touch, which is done to indicate confirmation of the visit, which conclude the diagnosis of the patients. With this input, the device assigns the proper coding to simplify claims processing for the visit and screen the most suitable medication based on the formulary for the patient's insurance company. With a third and final touch, the physician selects a prescription from a predetermined list

based on the screening done at second touch and send the order for the medicines to the patient's preferred pharmacy.

E-prescribing has allowed patients to electronically send their prescription to pharmacy computers. The process of sending prescription over the internet has decreased prescribing and medication error and has resulted into fewer call backs from pharmacies to physicians for clarification and doubts. The practice of electronically sending and receiving prescriptions has streamlined the process of clinical practice. In the result of this patient satisfaction and compliance have increased. Most importantly, linking the physician and pharmacy systems has reduced paperwork and the associated mistakes that may occur on reliance on handwritten prescription. E-prescribing also helps to make patient care more efficient and streamlined. Because the patient is not given a hard copy of the prescription, which is prescribed by the physician, the possibility of losing the prescription by patient's side is eliminated.

Telepharmacy

Telepharmacy, is the delivery of pharmaceutical care that deals with access to healthcare services such as medication review, drug therapy monitoring, prior authorization and refill authorization of prescription drugs, patients counselling, doubts clarification and prescription verification by a licensed pharmacist for those patients who are located at a distance from a hospital, pharmacy and healthcare centre [4]. Telepharmacy has many remarkable benefits like easy access to healthcare services in remote location, economic benefits and most prominently patient satisfaction. Telemedicine has been defined by the world health organization as that which delivers healthcare services when the distance is the critical factor considered by all healthcare professionals who use the information and communication technologies to collect the demographic data, treatment and prevention of disease and injuries, research and evaluation and advancing the healthcare system for the betterment of health individuals and the communities.

More importantly, Telepharmacy will be used as a tool to directly manage patients who are homebound due to prone to certain diseases or living in remote areas, using a combination of live interventions like online messaging and videoconferencing and store and forward intervention. Store and forward intervention include sending stored electronic information about the diseases and drugs from a pharmacy computer to the patients. For example, an instructional video for the proper use of corticosteroid inhaler should be stored on the pharmacy's computer and then forwarded to an asthmatic patient who has received a new prescription for this medication.

Electronic medical records

An EMR or Electronic Medical Records is the online based application in which a patient medical record is stored in a computer or server for online access by authorized pharmacists. The EMR will provide a complete longitudinal medical document that gives access to patient's entire medical history while making health care decisions [5]. The prime objective of implementation of the EMR system in healthcare facilities is to provide potential benefits to improve the quality of health care, but there is significant factor to be consider associated with human factor, ergonomics, workflows and inherent environmental conditions [6]. These all factors should be taken into consideration to improve the quality and cost of patient health care as well as employee and patient safety.

The implementation of an EMR had a prominent effect on the volume of communication between pharmacists and patients. After EMR implementation, the amount of clarification request and incorrect dosing communication had

been decreased. This suggests that the EMR improve prescribing safety as well as capable of changing the prescription patterns as the number and percentage of clarification requests, interaction notifications and incorrect dose notifications were lower after the execution of the EMR system. Due to this, the number and percentage of refills accepted and new prescription requests increased.

The act and regulation for online pharmacy

For the online pharmacy, indian internet pharmacies association was set up which later named as Digital Health Platforms (DHP). DHP is a syndicate of entrepreneurs who owns their businesses in online pharmacy and health space. This association made laws for the online pharmacy on the following conditions:

- No medication will be sold without prescription.

- Schedule X drugs will not be sold on online pharmacy

- The packing of final order will be done in temper-proof cover, under the supervision of registered pharmacist of the pharmacy.

- For every sale the documentation or the valid receipt should be made.

- If government of India direct, then medicine recall should be facilitated.

Selecting an online pharmacy or drugstore

- While selecting an internet online pharmacy, make sure the online site requires a prescription and has pharmacist available to answer questionnaire.

- While doing the payment of the medicines, don't provide personal information like credit card, debit card number unless you are sure the site will be protected.

- Always buy from state-licensed pharmacists.

Stores over internet

There are over 250 online stores which recently acquired the indian pharmaceutical market, which contributes almost Rs. 1000 crores to the indian drug market. These websites offer the consumers to buy wide variety of drugs with no problems. Almost more than half of these website do not get recognized or running illegally over the internet. Only few of the license of permit to sell drugs online. These online stores also have advantage for the customers to compare prices and buy whatever product they want to buy. But these online buying comes with a disclaimer that is to be careful while buying. Some of these online stores sell medicines which are not safe to use and can cause serious health risks.

DISCUSSION

Advantages of online pharmacy

- There are ample of benefits of internet or online pharmacies. The users are at ease while using these which describes the simplicity of their user interface.

- They are easily accessible and convenient. They avoid infliction in customers as they don't have to go out to buy medicine, hassle free purchase as some people hesitate to ask for medicines in front of other customers.

- Large number of customers are attracted towards these websites because of their strategical marketing advertisement, and this makes customers to find their choice of website they want to use for purchasing.

- On these pharmacies the developer makes a portal where you can find all the information about the drug.

- They provide services like overnight delivery of the drug, 24 × 7 online consultation service.

- They offer medication on lower pharmacies than the traditional pharmacies.

- Some of these internet pharmacies sent e-mails regarding when their prescription is due to be refilled.

- Some internet pharmacies allow customers to remain anonymous during their consultation.

Findings

In india, the sale and distribution of drugs falls under the drugs and cosmetics rule, 1945. However, the drugs and cosmetics rule do not distinguish between online and offline sale and distribution of drugs. In india, there are only two types of drugs available a) prescription Drugs b) non-prescription Drugs. The drugs and cosmetics rules 1945 allow the drugs to be sold only through a prescription signed by registered medical practitioner. The scanned and electronic form of prescription must accept by online pharmacies to process order of that prescription drugs otherwise it will be difficult to adhere the rules. Therefore, the prescription in in electronic form or a scanned copy of the prescription would accept only if the registered medical practitioner affixes his electronic signature to it. But this a cumbersome task for these Online Pharmacies who receive scanned copy of the prescription because less than 1% of RMP's are using electronic signature. Also, according to the drugs and cosmetics Rules, 1945 to dispense prescription drugs registered pharmacist is required, that drug has to be dispensed only under his supervision and he has to make a note of that based on the drug has been given. Now the question arises is how to make a note based on scanned or electronic form of prescription.

CONCLUSION

Today, in india around 150 startups are currently running as online pharmacy with the leading e-pharmacy player like 1 mg, Medlife, PharmEasy, MChemist, Myra, Netmeds. For that India should have an effective regulatory body for the implementation of online pharmacy. The objective should be to implement online pharmacy practice all over the India without further delay. At present online pharmacy is at its initial phase in India, but it has great potential to grow in the upcoming generations. The factor that leads to the demand of e-pharmacy in India is mainly due to unsatisfied medical needs due to larger population and overuse of internet. As in India consumer behaviour is rapidly changing, there is large demand to access wide range of products and services at single click on the computer.

LIMITATIONS OF ONLINE PHARMACY

Although online pharmacy eliminates certain errors, it potentially develops new errors and reintroduces problems similar to those which are encountered with the practice of handling written prescription. A study comparing traditional prescription handling with that of e-prescription received by online pharmacists found that e-prescription requires more pharmacists interaction with the patients because of missing, inaccurate or unclear information. Also, the design aspect of online pharmacy software may increase the tendency of errors which are described above. Errors such as drop-down menus, poor screen design and automatic filling functions have been identified as probable source of errors and consequently leads to threats to patient safety. Delay in the entry of the new prescription leads to patient dissatisfaction and increased waiting times, as patient may arrive at the pharmacy before an order has been received. Delays like these impacts the workflow of these online pharmacies so as the service provider it is necessary confirm the messages related to order and to control the delivery of the order to its correct address. The sending of large number of prescriptions at once called as bundling creates potential workforce tension, as the pharmacists are required to dispense accurate prescription in a timely manner. Other limitations of online pharmacy include costs associated with the use: start-up, maintenance and transaction fees. Though large chain online pharmacies are able to negotiate lower transaction fees, smaller chain and independent pharmacies pay more to run online pharmacy software.

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