



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 13, Issue, 07 (D), pp. 1892-1897, July, 2022

**International Journal of
Recent Scientific
Research**

DOI: 10.24327/IJRSR

Research Article

A SURVEY BASED STUDY ON PERSPECTIVE OF CONSUMERS TOWARDS E-PHARMACY IN SINDHUDURG, INDIA

***Malbari Priyanka Bhaskar¹, Sawant Mayuri Sudhir², Sawant Sanket Sambhaji³, Shankardas Shweta Kishor⁴, Shirvalkar Priyanka Pandhari⁵, Tawade Mohini Tulashidas⁶ and Jagtap Vijay Arjun⁷**

¹Pharmaceutical Chemistry, Yashwantrao Bhonsale College of Pharmacy Sawantwadi
Sindhudurg Maharashtra, India

^{2,3,4,5,6}Yashwantrao Bhonsale College of Pharmacy, Sawantwadi, Sindhudurg
Maharashtra, India

⁷Yashwantrao Bhonsale College of Pharmacy, Sawantwadi, Sindhudurg, Maharashtra, India

DOI: <http://dx.doi.org/10.24327/ijrsr.2022.1307.0396>

ARTICLE INFO

Article History:

Received 06th April, 2022

Received in revised form 14th
May, 2022

Accepted 23rd June, 2022

Published online 28th July, 2022

Keywords:

E-Pharmacy, Conventional Pharmacy,
Medicines, Consumers.

ABSTRACT

Background and Aim: E-Pharmacy is also known as online pharmacy. Which is ubiquitous, easily accessible, convenient and also provides large variety of medicines at low cost. E-pharmacies also carry disadvantages with them such as lack of interaction with physician, dispensing of drugs without prescriptions, selling of poor quality medicines etc. There is lack of study about consumer's perspective towards E-Pharmacy and hence, study was planned to evaluate consumer's perspective and behavior towards the use of E-Pharmacy in Sindhudurg.

Method: This survey was conducted in Sindhudurg, India. Total 70 responses were obtained. A Google form having two sections that is Personal information and second section which is further divided into 2 sub-section namely Consumers preferring E-Pharmacy and Consumers preferring Conventional Pharmacy over E-Pharmacy was created. Questionnaires were shared to the consumers through different social media platforms like WhatsApp, Gmail, Instagram, and Facebook. The form was distributed and data obtained between February to March 2022. The responses were collected and analyzed based on the options specified for each framed question.

Result: Total 70 responses were received. Around 44.3% respondents were using E-Pharmacy and 55.7% responds were preferring Conventional pharmacy over E-Pharmacy.

Conclusion: The result of current study indicates that almost all respondents are aware about the E-Pharmacy. Most of the respondents are well versed with advantages, disadvantages and threats of E-pharmacy.

Copyright © Malbari Priyanka Bhaskar *et al*, 2022, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

An E-Pharmacy is a Pharmacy that operates over internet by selling drugs, medicines and sending them to the customers. Internet makes all the things easy and convenient. They are a massive hit and more and more people are using them rather than stroll down to local pharmacies. No doubt E-Pharmacy is more convenient to the consumers yet one should also look into the regulatory norms for the selling of drugs online, as it is directly related to the health of the consumers. (Chordiya SV *et al* 2020)

Conventional Pharmacy means Pharmacy Practice and includes the professional dispensing or supply of medicines, mixtures,

compounds and drugs; where appropriate, the sale of items of trade; the provision of service in conjunction with the professional dispensing or supply of medicines, mixtures, compounds or drugs; and the provision of health care services including education, advice and associated patient counselling. Pharmacists are the health professionals most accessible to the public. They provide medicines in accordance with a prescription or when its lawful, sell them without a prescription. Their professional responsibilities also include patient counselling at the time of prescription and over-the-counter medicine distribution, providing drug information to patients, healthcare professionals, and the general public, and

*Corresponding author: Malbari Priyanka Bhaskar

Pharmaceutical Chemistry, Yashwantrao Bhonsale College of Pharmacy Sawantwadi Sindhudurg Maharashtra, India

taking part in health promotion initiatives. (Chordiya SV *et al* 2020)

Types of E-Pharmacies

Inventory- based Model of E-Pharmacy

Inventory-based model of E-Commerce means an activity where the inventory of goods and services is owned by the E-Commerce company and the products are sold to the customers directly. Similarly, in E-Pharmacies, the E-Pharmacy owns the inventory of drugs / medicines that are stored in warehouses / distribution centers across geographic areas. Once orders are received by the E-Pharmacy on its portal / apps, they are reviewed by the registered pharmacist. Orders requiring a prescription are examined to see if the customer has uploaded a valid e-prescription or scanned prescription to the website/app. Without a legitimate prescription, no medications or pharmaceuticals are distributed. Registered pharmacists wrap the medicines/drugs in a tamperproof package and deliver them to customers through courier service.

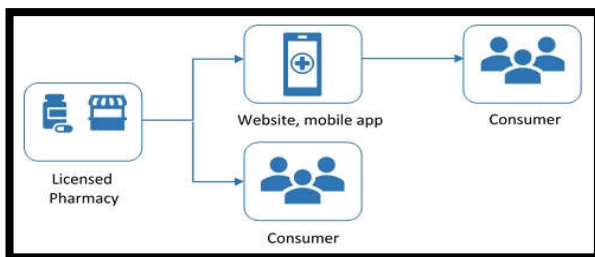


Figure No 01 Inventory-based model of E-Pharmacy

Marketplace-based Model of E-Pharmacy

In this, the technology companies acts as a facilitator between a buyer and a seller. In this model, the E-Pharmacy plays the role of an aggregator. It provides a technology platform that connects drug/medicine buyers and sellers. The E-Pharmacy website has licensed pharmacies listing their products. Consumers select the medicines/drugs available on the app/website. The e-prescription/scanned prescription is uploaded to the app/website. The order is forwarded to the authorized pharmacy. The pharmacy checks the order against the prescription and then prepares the orders. The orders are cancelled without a valid prescription. After that medicines are delivered to the customers by courier service.(Ankit Goyal *et al*)

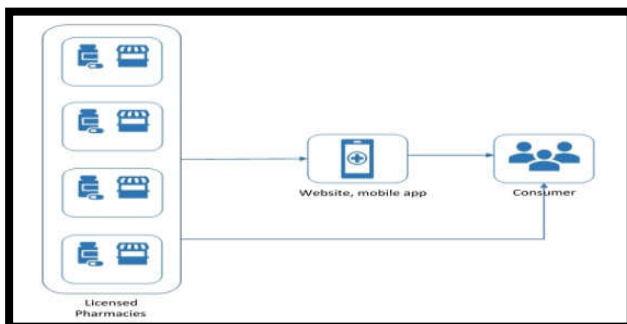


Figure No 02 Market place-based model of E-Pharmacy

Pros of E-Pharmacy

1. Convenience: It is easy to order medicines/drugs online with prescription. People who live far away terrestrial pharmacies, the elderly, people with disabilities, and

those who are burdened with their daily lives can all benefit from easy and fast online drug purchase and returns. Additionally, shipping charges are also less.

2. Lower Price: Shopping medicines Online helps a buyer to save money. According to some studies, it is shown that up to one-third of the price can be saved on prescribed medicines when purchased online.
3. Private and Confidential: This is especially useful for people who have difficulty in talking directly to their doctors or pharmacists. It is also useful for people who feel very shy or embarrassed in a conditions, such as erectile dysfunction, acne, sexually transmitted diseases, and hair loss. They can order products without any embarrassment or judgment.
4. Range of choice: E-Pharmacies offer a variety of options. They usually have more medicines than physical pharmacies.
5. Drug Approval: Most of the legal stores have a drug approval process. They require a prescription from a physician or at least provide the drug as a prescription drug after the consumer fills out a questionnaire. This questionnaire will be reviewed by a doctor before the drug is shipped. Medical Information: Some E-Pharmacies provide useful information about medicines and diseases, as well as links to medical resources such as universities, government agencies, and health associations.(Chordiya SV *et al*, 2020; Ankit Goyal *et al*; Singh H *et al*, 2020; Nicola Gray *et al*, 2011; A Roshini *et al*,2021)

Cons of E-Pharmacy

1. One of the biggest concerns is that e-pharmacies dispense medicines against the scanned prescriptions. These are easy to manipulate and can lead to overuse of medicines. Unlicensed dispensing, access to counterfeit medicines, lack of pharmacist information, and easy availability of illicit substances are the main issues associated with e-pharmacies.
2. Bypass health professional-patient relationship: Sale of dangerous medicines when taken without medical supervision or prescription can lead to harmful results. The purity and quality of the medicine is not guaranteed. There are chances of drug resistance, interactions, self-medication, drug abuse. Lack of proper counselling and face to face contact with medical professionals.
3. There are no clear rules and regulations regarding e-pharmacies. It is difficult to distinguish between legitimate e-pharmacies and illegal e-pharmacy websites, and the presence of illegal e-pharmacies may sell poor quality of medicines.
4. Customer privacy is compromised as the personal and financial information is available online. Medical privacy is a major concern.
5. Some medicines require specific storage conditions and if not properly monitored, sensitive medicines can lose their efficacy and efficiency. Mishandling of medicines during transportation can also affect the drugs.
6. As the internet is easily accessible by minors, they can order medicines online and consume without parental supervision. This can lead to overconsumption and abuse of drugs.

7. Access to illiterate and poor people is difficult, and e-pharmacies also impact the business of offline pharmacists.
8. Additional shipping fees and prices can change quickly. (Chordiya SV et al, 2020; Singh H et al, 2020; Nicola Gray et al, 2011; SahRk et al, 2018; Lombardo S et al, 2019)

Pros of Conventional Pharmacy

1. Processing of Prescription: The pharmacist verifies the legality, safety and suitability of the prescription, examining the patients dosing record before dispensing the prescription (if such records are kept at the pharmacy). They make sure the dosage is correct and dispensed. They decide whether the drug should be given to the patient with appropriate advice.
2. Care Of Patients: The pharmacist collects and integrates information about the patients medication history, clarifies the patients understanding of the intended dosage regimen and method of administration, advises the patient on drug related cautions, and in some countries, evaluates and monitors the therapeutic responses.
3. Monitoring of drug Utilization: Pharmacists can participate in measures to monitor the use of medicines in actual research projects, or to analyse prescriptions to monitor side effects.
4. Responding to Symptoms of Minor Ailments: The pharmacist is asked for advice on various symptoms by citizens and is transferred to the doctor as needed. If the symptoms are associated with a mild condition of self-limiting, the pharmacist can provide over-the-counter medications. If symptoms persist for more than a few days, seek medical attention. Alternatively, the pharmacist can give advice without supplying the drug.
5. Informing Health Care Professionals and the Public: Pharmacists can keep information about all medicines, especially newly introduced medicines in one place. If necessary, make this information available to other healthcare professionals and patients and use it to promote the rational use of medicines by giving advice and explanation to doctors and general public. (Chordiya SV et al, 2020; Baid AN et al, 2021)

Cons of Conventional Pharmacy

1. Time: Sometimes medicines may not be available at local pharmacies. Thus it can be time consuming for older and busy people to see the right medicines at the right time to avoid risks to the patients health.
2. Price: The prices of medicines are higher than those of online pharmacies because of the profit of the intermediary. Patients may find it difficult to buy expensive branded medicines due to poverty.
3. Inconvenience: Chronic elderly patients who are unable to visit the pharmacies may find it difficult to find a store far away or elsewhere. (Chordiya SV et al 2020)

Challenges

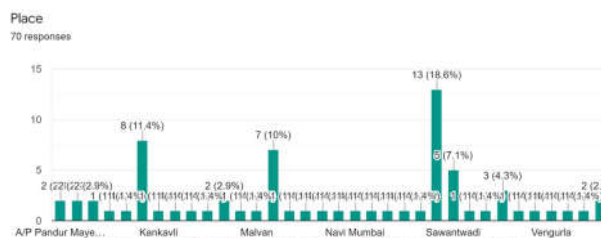
- Absence of separate laws for e-pharmacies in India.
- Taking money before delivery of medicines/drugs is risky.

- Reach of technology based model to illiterate people due to poor knowledge about the internet.
- Speed of internet.
- Prescription associated issues.
- Legality of electronic signature.
- Legal e-pharmacy identity and reliability.
- Consumer rights protection.
- Confidentiality and security of the information exchanged.
- Financial transaction security.
- Regulation and management of e-pharmacies outside the jurisdiction of India.
- Undefined laws on inter-state transfer of drugs/medicines.
- Issues related to drug importation and re-importation.
- (Priyanka VP et al, 2016; Mahapatra DM et al; Parikh CD et al, 2019)

MATERIALS AND METHODS

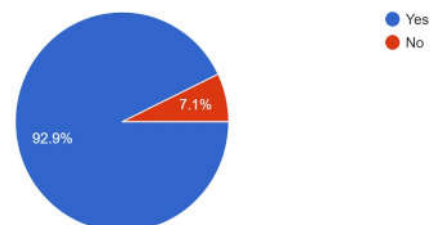
This survey was conducted in Sindhudurg, India. The survey includes population sample from Devgad, Dodamarg, Kankavli, Kudal, Sawantwadi, Malwan, Vengurla and Vaibhavwadi. Total 70 responses were obtained. A Google form having two sections that is Personal information and second section which is further divided into 2 sub-section namely Consumers preferring E-Pharmacy and Consumers preferring Conventional Pharmacy over E-Pharmacy was created. Questionnaires were shared to the consumers through different social media platforms like WhatsApp, Gmail, Instagram, and Facebook. The form was distributed and data obtained between February to March 2022. The responses were collected and analysed based on the options specified for each framed question.

Questionnaire

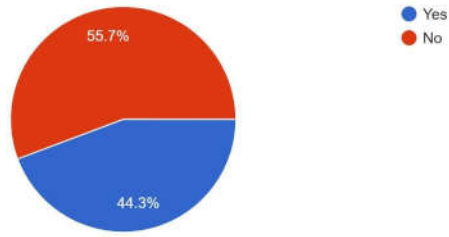


Do you know / heard about E Pharmacy?

70 responses

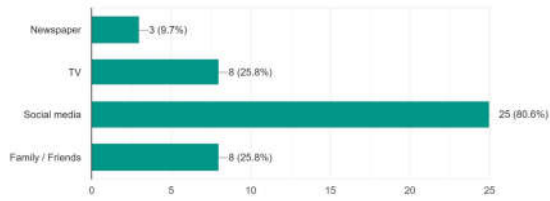


Did you ever buy medicines from E Pharmacy?
70 responses

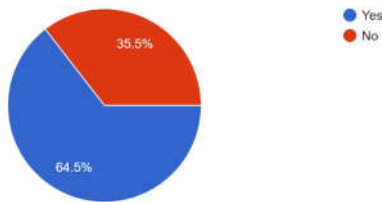


Consumers Preferring E-Pharmacy

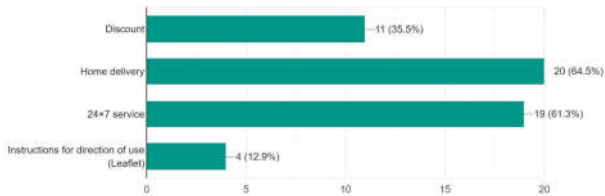
How did you get to know about E pharmacy?
31 responses



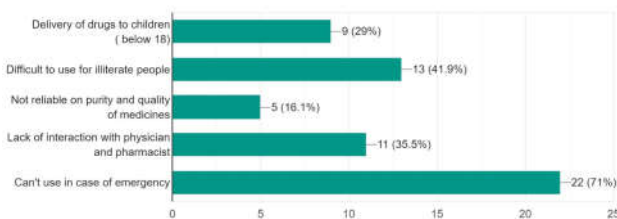
Are you in favour of uploading prescription on website of online pharmacy?
31 responses



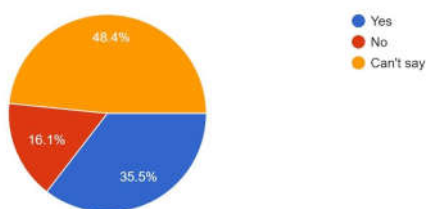
What are the factors that attracts you towards E pharmacy?
31 responses



What do you think, what are the issues with E pharmacy?
31 responses



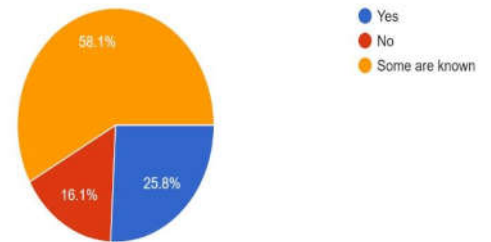
Do you think that buying medicine online is safe?
31 responses



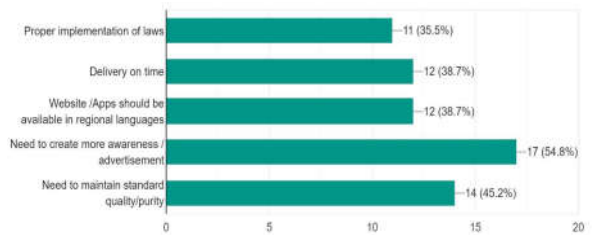
Were you aware about these laws before?

- As per Rule 67(S), Drug and Cosmetics act (Amendment) Rule, 2018, E-Pharmacies can't advertise any drug on radio/TV/internet/ print or any other media for any purpose.
- As per Pharmacy Act and Drug and Cosmetics Rules only registered pharmacists can dispense medicines on the prescription of a medical practitioner (with respect to E-Pharmacies it is still questionable).
- As per Pharmacy Practice Regulation 2015, a pharmacist is required to counsel a patient regarding the usage of drugs, side effects etc while purchasing drugs.
- As per rule 67(M) (2), 67(K), Drug and Cosmetics (Amendment) Rule, 2018, prescription are uploaded online by a customer, E-Pharmacies have to ensure that the information remains private and confidential and not to be disclosed to any person other than Central Government or State Government.
- As per rule 67(M)(5) Drug and Cosmetics (Amendment) Rule, 2018, sale of tranquilizer, psychotropic drugs, narcotics and habit-forming drugs have been prohibited through E-Pharmacies portals.

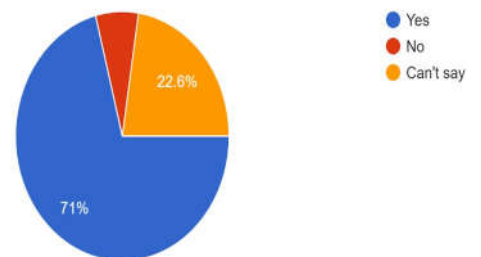
Were you aware about these laws before?
31 responses



What are the factors you think need to change, so that more people will get attracted towards E pharmacy?
31 responses



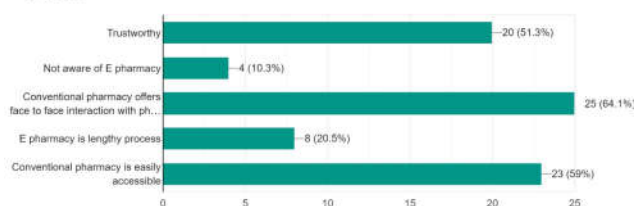
Are you satisfied with the services provided by E pharmacy?
31 responses



Consumers Preferring Conventional Pharmacy

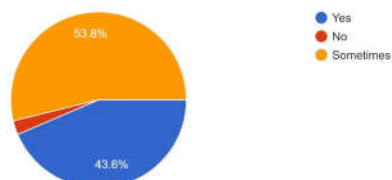
Why do you choose Conventional pharmacy (medical stores) over E pharmacy?

39 responses



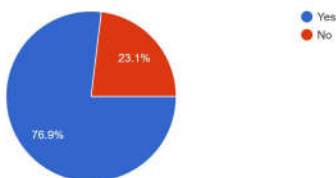
Does your pharmacist give detailed information (patient counselling) about medicines?

39 responses



Are you aware of following facilities provided by E pharmacy? 1) Discount 2)Home delivery, 3)Instruction for direction of use 4)All medicines at one place

39 responses



Are you satisfied with the service provided by conventional pharmacy?

39 responses

Were you aware about these laws before?

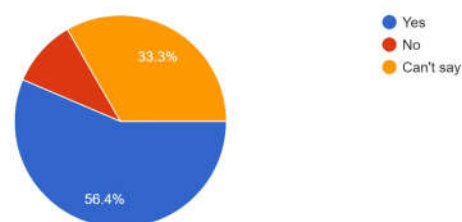
- As per Rule 67(S), Drug and Cosmetics act (Amendment) Rule, 2018, E-Pharmacies can't advertise any drug on radio/TV/internet/ print or any other media for any purpose.
- As per Pharmacy Act and Drug and Cosmetics Rules only registered pharmacists can dispense medicines on the prescription of a medical practitioner (with respect to E-Pharmacies it is still questionable).
- As per Pharmacy Practice Regulation 2015, a pharmacist is required to counsel a patient regarding the usage of drugs, side effects etc while purchasing drugs.
- As per rule 67(M) (2), 67(K), Drug and Cosmetics (Amendment) Rule, 2018, prescription are uploaded online by a customer, E-Pharmacies have to ensure that the information remains private and confidential and not to be disclosed to any person other than Central Government or State Government.
- As per rule 67(M)(5) Drug and Cosmetics (Amendment) Rule, 2018, sale of tranquilizer, psychotropic drugs, narcotics and habit-forming drugs have been prohibited through E-Pharmacies portals.

RESULT AND DISCUSSION

Survey conducted among different groups of population showed various opinions about E-Pharmacy and conventional pharmacy.

Would you like to switch to E pharmacy in future?

39 responses



For Consumers preferring E-Pharmacy

The survey result of Consumers who preferred E-pharmacy shows that, most of the respondents are aware of E-pharmacy. Nearly 55.7% of respondents actually used E-pharmacy for buying medicines. 80.6% respondents got to know about E-pharmacy from social media. Most of the respondents that is 77.4% choose E-pharmacy as they need to visit multiple medical stores for required medicines, 12.9% respondents choose E-Pharmacy complaining that medicines are being sold by unqualified person. 64.5% respondents are in a favor of uploading prescription on website of online pharmacy, whereas 35.5% are not. About 37% respondents attracted towards E-Pharmacy because of home delivery, 61.3% respondents are attracted towards E-Pharmacy Because of 24x7 service, whereas instruction for direction of use (leaflet) attracts 12.9% respondents towards E-Pharmacy. Nearly 29% respondent considers delivery of drugs to Children (below 18) is issue with E-Pharmacy, 41.9% respondent considers that E-Pharmacy is difficult to use for illiterate people, whereas more than 71% respondent considers that E-Pharmacy facility can't be used in case of emergency as a major issue associated with E-Pharmacy. About 35.5% respondents Think that buying medicines online is safe, 16.1% respondent thinks it is not. Around 35.5% respondent thinks that proper implementation of laws are required while 38.7% respondent thinks that website/Apps should be available in regional languages and more than 54.8% respondent thinks that there is need of creating more awareness /advertisement.

For Consumers preferring Conventional Pharmacy

The survey result of Consumers who preferred conventional pharmacy shows that, about 51.3% respondents choose conventional pharmacy over E-Pharmacy considering it trustworthy, while 10.3% respondents were not aware of E-Pharmacy, more than 64.1% prefers Conventional pharmacy as it offers face to face interaction with pharmacists. Nearly 76.9% respondents are aware of facilities provided by E-Pharmacy. More than 71.8% respondents are satisfied with the services provided by Conventional pharmacy. About 38.5% respondents' say's government should apply more rules and regulations to E-Pharmacy. Most of the respondents that is 56.4% would like switch to E-Pharmacy in future.

CONCLUSION

From the past decades the way to purchase products and services has change and basically internet took over the market. E-Pharmacy has not only benefited users but also has some patient safety risks in purchase of medicines apart from conventional pharmacy as well. In COVID-19 lockdown consumer's started buying medicines form E-Pharmacy on

large scale. For wholesale and retail trade E-pharmacy is continuously growing day by day. Online medicine Purchase is popular worldwide due to easy accessibility. In India E-pharmacy is at its beginning stage with various flaws, may be in future it has the potential to be a very large industry Segment.

Survey of 70 consumers was conducted out of which 31 consumers preferred E-pharmacy, 39 consumers preferred Conventional pharmacy over E-Pharmacy. The aim behind this survey is to throw light on usage of E-pharmacy. The result of current study indicated that almost all respondents are aware about the E-Pharmacy. Most of them are well versed with advantages and disadvantages and threats of E-pharmacy. The willingness to purchase the medicines online seems to be hindered by factors like reliability on purity and quality of medicines, lack of interaction with physician and pharmacist, difficulty in use of E-pharmacy For illiterate people. However, offers like discount, home delivery, 24×7 service, instruction for direction to use medicines (leaflet) are available in E-pharmacy and limitations of conventional pharmacy such as consumers needs to visit multiple medicals for required medicines, not receiving bills And patient counselling by pharmacist, medicines being sold by unqualified person makes Consumers moves towards E-pharmacy. Moreover, purchasing medicines from e-pharmacy is not a common practice amongst the current sample size. Due to rapidly increasing number of internet users every day, mutual partnership among E-pharmacies, regulatory authorities and physicians for consumer's wellbeing seem like the need of the hour.

References

- Chordiya SV, Garge BM. E-pharmacy vs conventional pharmacy. IP International Journal of Comprehensive and Advanced Pharmacology. 2020 Dec 15;3(4):121-3.
- Ankit Goyal, Dr. Nirod Kumar Singh, Dr. AkshayZanjurne; IN THE SPOTLIGHT: e-Pharmacy in India An Exponential Growth Opportunity; Frost &Sullivan..
- Singh H, Majumdar A, Malviya N. E-Pharmacy impacts on society and pharma sector in economical pandemic situation: a review. Journal of Drug Delivery and Therapeutics. 2020 Jun 15;10(3-s):335-40.

- Nicola Gray, The evolution of online pharmacies; selfcare may 2011;2(3):76-86.
- Shebani Bhargava, E-Pharmacies in India: The need for regulation; India Law Journal.
- Priyanka VP, Ashok BK. E-pharmacies regulation in India: Bringing new dimensions to pharma sector. Pharmaceutical Regulatory Affairs. 2016;5(175):1-7.
- A Roshini, G.M.Pavithra, Venugopal N; e-Pharmacy -A boon or bane; IIPR ; June 2021,13(2); 1800-05.
- Chaturvedi A, Singh UK, Kumar A. Online pharmacy: An e-strategy for medication. Int J Pharm Front Res. 2011;1(1):146-58.
- Shivani Dutta, E Pharmacy in India: Issues and Challenges Amity International Journal of Juridical Sciences; 2017 (3) ; 24-29.
- Mahapatra DM, Patra SK. Recall of drugs and E-pharmacies in India.
- Sah RK, Chandane RD, Suranagi U, Manocha S, Kapur A, Hotha P. Awareness and behavioural outlook towards online pharmacy services among consumers in Delhi, India: a pilot survey. Eur J Pharm Med Res. 2018;5(3):6.
- Parikh CD, Desai CK, Shah MK, Mishra VR. An Evaluation of Online Pharmacies for Compliance to Regulatory Criteria and Price Variation of Listed Medicines. Journal of Young Pharmacists. 2019 Apr 1;11(2).
- Gupta MS. Consumer Buying Behavior towards E-Pharmacy. DogoRangsang Research Journal. 2020;10(03):183-90.
- Baid AN, Ghosh A. Factors Affecting The Shift Of Consumers Towards E-Pharmacies. UGC Care Journal. 2021.
- Lombardo S, Marino F, Cosentino M. A nationwide web-based survey of a sample of Italian Community pharmacists' perceptions and opinions about online sales of medicines and falsified Drugs. Pharmacy Practice (Granada); 2019 Dec;17(4).

How to cite this article:

Malbari Priyanka Bhaskar *et al.* 2022, A Survey Based Study on Perspective of Consumers Towards E-Pharmacy In Sindhudurg, India. *Int J Recent Sci Res.* 13(07), pp. 1892-1897. DOI: <http://dx.doi.org/10.24327/ijrsr.2022.1307.0396>
