

A Study on Knowledge, Perception and Practice of Online Pharmacy among Young Adults in India

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Abstract: India is one the booming online market in the world with anything and everything could be purchased online. The pharmaceutical market is also not left behind with more than 60 online pharmacies doing their business in India. The study aims to assess the young consumer's knowledge and perception towards the use of online pharmacy services in India. **Method:** Descriptive, quantitative questionnaire survey approach was used for evaluating the online medicine purchase habits of youngsters pan India and also to access their knowledge and perception towards e-pharmacy. **Results:** 61.2% respondents used online pharmacies for purchase of medicines and about 31.6% consumers made monthly purchase of medicines through e-pharmacies. 56% consumer's stated cheaper rates of medicines online was the reason for their purchase while 28% consumers responded that it was more convenient to purchase medicines through e-pharmacies. **Conclusion:** The perception towards e-pharmacy was good among majority of the respondents which was mainly driven by cheaper rates of medicine online and convenience of delivery at door steps.

Keywords: e- Pharmacy, survey, online purchase, medicines

1. Introduction

The present Indian society is going through a revolutionary change with changing standard of living and fast emerging digitalization in every field. According to the survey report by Statistica, India is ranked the second largest online market behind China, with 580 million internet users. The pharmaceutical sector has gone through many changes over the years, due to both the change in demand and standard of living of the consumers, and the increasing digitalization and access to e-commerce markets. Rising trend of e-pharmacy in the western countries has encouraged the introduction of online sale of medicines in India also. Past three years has shown a booming rise in e-Pharmacy business in India with more than 60 start-ups already in the race. Youngsters being the prime users of internet are the major target population of the alluring e-commerce business and the pharmacy sector is also not left behind. This study focuses on the online medicine purchase behaviour of youngsters in India, so as to find out the awareness and trend of e-pharmacy among youngsters in the country. Since no studies were done in India focusing the young adults

alone, hence a study was designed to assess the young consumer's knowledge and perception towards the use of online pharmacy services in India.

2. Methodology

A quantitative, non-experimental, descriptive approach was used to explore the consumer's knowledge and perception towards e-pharmacy services in India. A survey questionnaire consisting of 25 questions was developed and carefully validated before circulating among the young respondents between the ages of 18 to 35 years. The sample size of the study was 5000 young adults from several areas across India. 2500 participants have been surveyed through survey monkey online tool and the remaining 2500 have been surveyed through direct approach. A mail and message with URL link of the survey was sent to friends, family members, relatives and communities. A direct survey method was also done personally and with the help of friends and relatives working in different states of the country. As translation to all regional languages was not possible, questions were asked in the local language for easy understanding. Consent was taken from all the participants before the survey. The data was analyzed by statistical package (SPSS) version 20. The $p < 0.05$ level was established as criteria for statistical procedures done.

3. Results

A. Socio Demographic characteristics

The Table.1 represents the demographic details of the respondents participated in the survey. Majority of the respondents were male 68.4% and 31.6% were female. Most of the participants belonged to the age group of 33- 35 years 64.4% followed by 28-32 years 19.2%. More than three fourth of the respondents were urban area dwellers 79.2%. In terms of educational qualification 43.6% respondents were post graduates followed by 33.6% graduates. More than half of the respondents had full time employment 51.2%, whereas 34% respondents were self employed. In terms of annual income more than half the respondents had income above four lakhs 52.8%, but 9.6% respondents reported that their annual income

Table 1
 Frequency and percentage of respondents based on their socio demographic characteristics

Attributes	Sub Attributes	No. of Respondents	Percentage
Gender	Male	3420	68.4
	Female	1580	31.6
Age	18 - 22 years	220	4.4
	23 - 27 years	600	12
	28 - 32 years	960	19.2
	33 - 35 years	3220	64.4
Area of Living	Rural	1040	20.8
	Urban	3960	79.2
Educational qualification	Primary School	100	2
	High School	1040	20.8
	Under graduate	1680	33.6
	Post graduate	2180	43.6
Employment Status	Student	220	4.4
	Self-Employee	1700	34
	Full-time work	2560	51.2
	Part-time work	360	7.2
	Unemployed	160	3.2
Annual Income	Less than 1 lakh	480	9.6
	1-2 lakhs	260	5.2
	3-4 lakhs	1620	32.4
	Above 4 lakhs	2640	52.8

Table 2
 Practice, knowledge and perception about online pharmacy

Attributes	Sub Attributes	No. of Respondents	Percentage
Practice online purchase	Yes	3920	78.4
	No	1080	21.6
Aware of e-pharmacy	Yes	4240	84.8
	No	760	15.2
Used online pharmacy	Yes	3060	61.2
	No	1940	38.8
Frequency of online pharmacy use	Frequently	400	8
	Monthly	1580	31.6
	As and when required	1760	35.2
	Not used	1260	25.2
Verify authentication of e-pharmacy	Yes	3300	66
	No	1700	34
Verify quality of medicine purchased online	By verifying the brand	2780	55.6
	By verifying the presence of harmful ingredients	940	18.8
	Not verify at all	1280	25.6
Substitution of brands	Yes	3740	74.8
	No	1260	25.2
	Reason for buying online	Unavailable in local pharmacy	600
Cheaper		2800	56
More convenient		1400	28
Available 24 x 7		200	4
Perception about e- pharmacy	Bad	360	7.2
	Average	860	17.2
	Good	2120	42.4
	Very Good	1660	33.2

was less than one lakh.

B. Information on knowledge, perception and practice of e-pharmacy

A series of questions were asked to the respondents to evaluate their online medicine purchase habits, knowledge and perception about online pharmacies. Majority of the respondents, 78.4% practiced online purchase and 84.8% respondents were aware of e- Pharmacies. 61.2% respondents used online pharmacies for purchase of medicines and about 31.6% consumers made monthly purchase of medicines

through e- pharmacies. 56% consumer's stated cheaper rates of medicines online was the reason for their purchase while 28% consumers responded that it was more convenient to purchase medicines through e- pharmacies. 66% participants verified the authentication of the e- pharmacies before making online purchase and 56% confirmed that they verified the quality of medicines with its brand name. 74.8% consumers confirmed that online pharmacy sites gave substitution options for purchase of different brand of same molecule. 33.2% consumer's perception about e- pharmacy was very good and 42.4% consumers reported that their perception was good

towards online purchase of medicines.

4. Discussion

The present study observed that more the half of the respondents 68.4% were male. In terms of age group most of the respondents 64.4% were in the age group of 33-35 years. In line with the above findings, Nuffield Council on Bioethics (2010), states that the internet has quickly become a major source of information for the youngsters who have access to it, and it has been argued that the demand for online health information is “unstoppable [1]” With aid of e-revolution, it is now possible to provide quality healthcare services by supplying legitimate medicines and better accessibility to treatment regime even to the remote areas of the world at reasonable cost. Hence, with aid of internet and information technology as an impeccable tool, youngsters can achieve the milestone in wellness and health domain (FICCI, 2015) [2]. In this study 43.6% respondents were postgraduates, which evaluates that higher education is related to awareness and use of latest technology. Burke R. R (2002) observed in his study that consumers with higher education were more comfortable using internet to find newer products in the market. In terms of annual income, it was found in the survey that 52.8% respondents had income above 4 lakhs [3]. Eastman and Iyer (2004) also concluded in their study that people with higher level of incomes are more likely to use the Internet and buy online [4].

A series of questions were circulated among the respondents to access their behaviour of online purchase of medicines and their perception regarding e- pharmacies. The present study report suggests that though 84.8% respondents were aware of e- pharmacies only 61.2% respondent practice online purchase of medicines and 38.8% had never used online pharmacies. The study shows that 31.6% respondents bought medicines online on monthly basis and mainly belonged to the age group of 33 to 35 years. This clearly indicates that this age group is more likely to have health issues or make the purchase for their aged parents or relatives. According to a survey conducted by the Consumer Online Foundation and the Bureau of Research on Industry and Economic Fundamentals BRIEF(2016), it was observed that of 4600 respondents nearly 60% of consumers accepted that they purchase medicine from online of which majority were males

(88%) belonging to age group 55- 74 years. The survey reported that as ageing progress people prefer online purchase against traditional brick and mortar pharmacies[5].66% participants responded that they would verify the authentication of the online site before buying medicines from it.55.6% participants verify the brand value where as 18.8% respondents would verify for the presence of harmful ingredients to verify the quality of medicines. More than half of the respondents 56% stated that cheaper rates and higher discounts were the key attractions of online pharmacies, whereas 28% participant stated that it was more convenient as medicines are delivered at door steps. Priyanka & Ashok 2016 concluded in their study that the benefits of e-pharmacy are time-saving, cost-effectiveness, possibility of anytime access, easiness augmented, effortless accessibility to medicines, feasibility of reimbursement, simple comparison of medicines by way of price, quick delivery, expanded options because of the availability of broader assortment of medicines, possibility of delivering the medicines at a particular time in the wanted location; hence, the youngsters demonstrate a favorable attitude towards online pharmacies[6].

5. Conclusion

The present study results indicates that there is greater awareness regarding the online pharmacy services being provided in India among the youngsters and are also utilizing the positive aspects of the current setup. Further many reported that they are willing to use online pharmacies in future also. Hence it is conclude that stringent rules and regulations are to be implemented so that presents flaws could be rectified ensure a safe use of online services for purchase and delivery of medicines.

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