

Consumer Behavior towards Consuming Medicines without Prescription in Pune City – An Empirical analysis.

Ms. Kavita Kamath

Research student, (Ph.D.) RTM Nagpur University

Asst. Professor Sinhgad Institute of technology & science

Ms. Supriya Lakhangaonkar

Research student, (Ph.D.) RTM Nagpur University

Abstract:

It has been observed that in India, many customers buy medicines without presenting valid prescription to the chemist. This is a major problem having shocking side effects & hazards. As compared to the developed countries, in India, there aren't many stringent laws governing pharmaceuticals selling medicines, and the implementation of these rules & regulations is even lesser. Moreover, there is very low consumer awareness & education. This paper aims to address the issue of increasing number of people buying medicines without prescription & their reasons for doing so. The paper also explains the hazardous effects of medicines without prescriptions & intends to suggest measures which can be taken to curb this problem. The research conducted is descriptive in nature. The researchers have conducted surveys among consumers in Pune city using a structured questionnaire as their research tool.

Key words: Customer perception, patients, OTC (Over-The-Counter), prescription medicines, pharmacists, chemists, self medication

Introduction:

Healthcare is a primary, integral & highly important aspect for any nation. Countries spend huge amount of funds on developing & maintaining healthcare facilities. While talking about healthcare, one important aspect to be noted is that pharmaceuticals play a major role here. Medicines are the product sold to patients for treating their ailments, reducing the symptoms, fighting infections & controlling health issues. While medicines play a very important role in the treatment, they also pose certain harmful problems. All medicines have side effects, despite what is marketed by their makers. Many medicines need to be given to patients only after considering their history, vulnerability, & many other factors like lifestyle, habits, etc.

In many countries, OTC or non-prescription drugs are selected by a regulatory agency in order to check whether the ingredients which are used in the manufacturing of drugs are safe and effective when used without a doctor's advice. These non-prescription drugs are usually regulated by active pharmaceutical ingredients (APIs), not final products. This implies that the governments allow drugs manufacturers the right to formulate ingredients, or combinations of ingredients, to make proper medicinal mixtures. Regulations related to who is authorized to dispense these drugs, to where they are to be sold, and whether a prescription is required vary considerably from country to country. In India, all the drugs that are not included in the list of prescription drugs are considered as non-prescription drugs (or OTC drugs).

It should be noted that both OTCs & Prescription drugs have side effects, especially if taken without medical advice.

A large number of potent drugs such as pain relievers, cough remedies, anti-allergies, laxatives, antibiotics, antacids and vitamins are sold over-the-counter (OTC). Self medication with OTC medicines could cause allergy, habituation, and addiction. For example, excessive use of vitamins can cause hypervitaminosis, or vitamin poisoning. Antimicrobial resistance is a worldwide problem, particularly in India where antibiotics are often available without a prescription.

The major reason of buying medicines without prescription is Self Medication.

This paper studies the various reasons of self medication or buying drugs without prescription as well as the hazards of the same.

Scope of the research:

The scope of the research is limited to consumers purchasing medicines from various chemists in Pune city. The study covers the consumer behavior of patients in Pune city only.

Objectives:

1. To analyze the customers purchasing over the counter without prescription.
2. To analyze which are the majority of medicines sold without prescriptions.
3. To make a literature review citing the hazardous effects of medicines taken without prescriptions.
4. To suggest remedial measures.

Research Methodology:**Research design:**

The research design used for this study is Descriptive research.

Sampling:

The sampling method adopted was random sampling. The sample size was 200 customers.

Methods of Data Collection:

Primary data was collected using two methods viz. questionnaire & observation. Observation was needed to know how many consumers go to the chemist without valid prescription as most chemists & customers both are unwilling to share this information.

A structured questionnaire was designed for data collection.

Secondary data was collected from various research papers in journals, websites, theses, newspapers & magazines.

Literature Review:

The phrase "OTC" has no legal recognition in India; all the drugs which are not included in the list of "prescription-only drugs" are considered to be non-prescription drugs (or OTC drugs). Prescription-only

drugs are those medicines that are listed in Schedules H and X of the Drug and Cosmetics Rules. - *Pran Gopal Saha – Global Research analysis Volume: 2 Issue: 10 Oct 2013 ISSN No 2277 – 8160*

Popping pills without a doctor's prescription, even if the ailment is minor, could have serious repercussions, according to medical expert, *Lalitha Suppiah. (source: times of india, indiatimes.com)*

India is currently ranked 11th in the global OTC market in size, with an estimate that it will reach 9th position within five years. (*Source :Nicholas Hall & Company,India,DB6 2006*)

Currently the Indian OTC market (i.e. non-prescription advertised medicines) is estimated to represent approximately Rs.104 Billion growing at about 8-9% (*Source :ORG-IMS*)

According to Lalitha Suppiah, Medical expert interviewed by the times of India, the dangers of self-medication could include the following:

- Misdiagnosing the illness
- Habituation or addiction
- Allergic reactions
- Adverse drug Reactions
- Insufficient dosage
- Risk of stroke
- If consumed during pregnancy: Congenital or birth defects in new born babies.

According to a report the reasons for self medication, Males (35.48%) and females (15.56%) used Self Medication due to the lack of time, 32.26% males and 26.67% females used self medication due to high consultant fees of doctors, 29.03% males and 11.11% females wanted quick relief, 3.33 % male and 24.44% female believed in Ayurveda, There are some cases of female (6.67%) in which there is no family support hence they used self medication. There are some other reasons like wider availability of medicine, greater choice of treatments, ease of access, an active role in his/ her own health care and self reliance in preventing or reliving minor symptoms or condition, ailment was minor and financial constraints - *Sonam Jain, Reetesh Malvi, Jeetendra Kumar Purviya, -International Journal of Pharmaceutical & Biological Archives 2011; 2(3):831-836.*

Indo Global Journal of Pharmaceutical Sciences, 2012; 2(1): 21-35, Pankaj Jain et al, found that nearly 37.4% of the total respondents had practiced one form of self-care of which 28.2% were self-medication before they came for the current self-medication.

Stimmy Stephen et al, in the American International Journal of Research in Science, Technology, Engineering & Mathematics found that self medication was done by a large number of patients.

Considering drug resistance as a serious health hazard the government of India has brought 46 drugs and their formulations under a new category called 'Schedule H1'. From March 1, all medicines under this schedule will be dispensed by a pharmacist only on prescription of a registered medical practitioner as defined under *Drugs and Cosmetics Act. (Source: Times News Network)*

Taking anticholinergic drugs at high doses or for a long time significantly increases risk for developing Alzheimer's disease and other dementias, say *researchers from University of Washington School of Pharmacy*.

According to *drug watch.com*, with record numbers of patients suffering or dying as a result of prescription drug side effects, many wonder why medications that are considered dangerous are allowed on the market. The truth is that nearly all medications, both over-the-counter and prescription have some kind of undesirable and sometimes dangerous aftereffects, from muscle aches to death. Even with the federal regulations that oversee these drugs, side effects are inevitable. For regulators, though, the benefits may sometimes outweigh the dangers.

Data Analysis & findings:

1. Demographic Profile of Respondents:

Gender:

Gender	Number	Percentage
Male	120	60%
Female	80	40%
Total	200	100%

Age:

Age Group	Number	Percentage
Below 18	0	0
18-25	39	19.5%
25-35	54	27%
35-45	48	24%
45-55	38	19%
Above 55	21	10.5
Total	200	100%

Education:

Education:	Number	Percentage
Below 10 th Std.	0	0
10 th Std. or equivalent	2	1%
12 th or equivalent	5	2.5%
Graduate	88	44%
Post Graduate	96	48
Other	9	4.5%
Total	200	100%

Occupation:

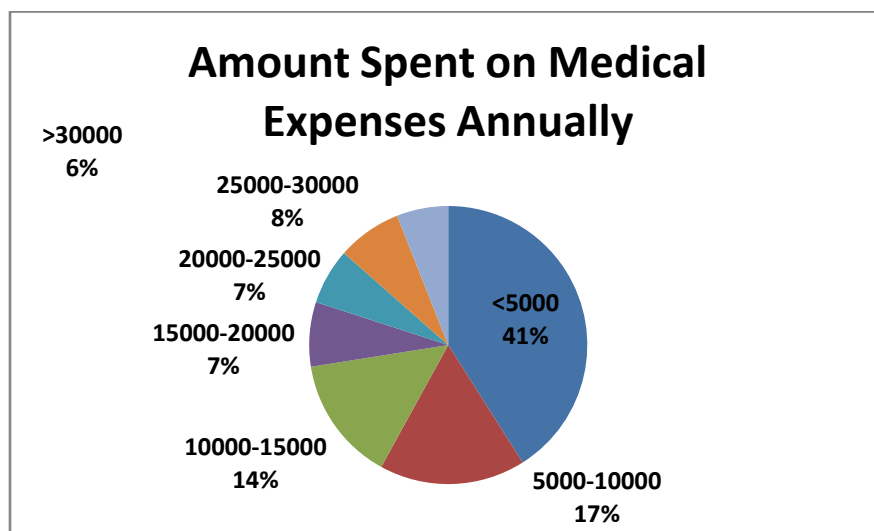
Occupation	Number	Percentage
Self Employed	6	3
Salaried Employee	152	76
Professional	7	3.5%
Housewife	23	11.5%
Retired	12	6
Unemployed	0	0%
Total	200	100%

Income:

Income	Number	Percentage
<1 lakh per annum	6	3
1 to 3 lakhs per annum	73	36.5%
3 to 5 lakhs per annum	85	42.5%
5-7 lakhs per annum	28	14
Above 7 lakhs per annum	8	4
Total	200	100%

2. Amount spent on Medical Expenses Annually

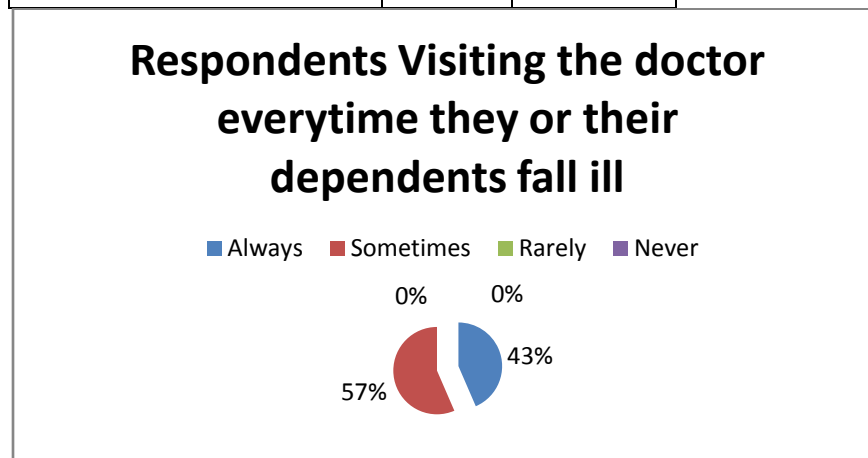
Amount (Rs.)	Number of respondents	Percentage
<5000	82	41%
5000-10000	34	17%
10000-15000	29	14 %
15000-20000	15	7%
20000-25000	13	7%
25000-30000	15	8%
>30000	12	6%
Total	200	100



The above graph shows that 72% of medical expenses incurred are mainly below Rs. 15000 p.a. with 41% respondents spending less than Rs. 5000 p.a. Only 6% of the respondents spend more than Rs. 30000 p.a.

3. Whether Respondents visit the doctor every time they or their dependents fall ill

Frequency of Visits	Number	Percentage
Always	87	43%
Sometimes	113	57%
Rarely	0	0%
Never	0	0%
Total	200	100

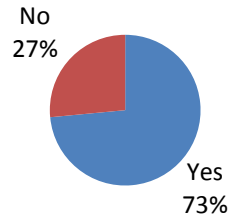


It is seen from the above data that 57 % of the respondents do not visit the doctor every time they or their dependents fall ill, but only sometimes visited the doctor. The remaining 43 % visit their doctors every time they or their dependents fall ill.

4. Drugs bought from chemists without visiting the doctor:

Whether Drugs are bought from chemists without visiting the doctor	Number	Percentage
Yes	147	73%
No	53	27%
Total	200	100%

Patients buying Medicines directly from chemists without visiting doctors



The above pie chart shows that a large number of patients, i.e. 73% buy medicines directly from chemists without visiting the doctor.

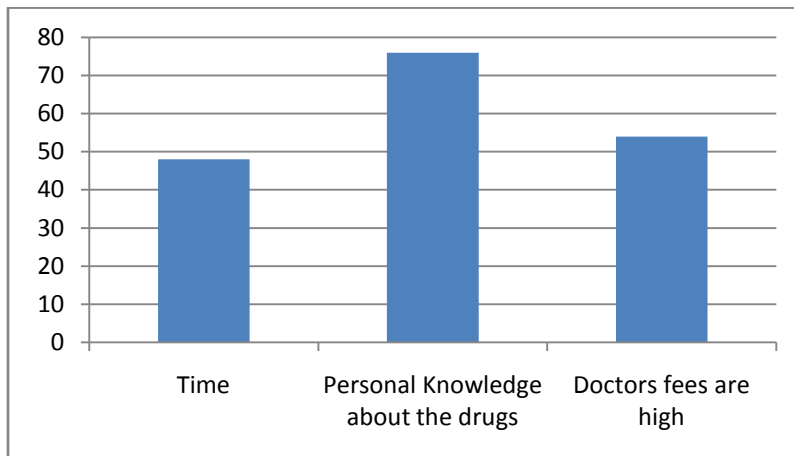
5. Drugs Bought without doctor's prescription:

The following were the drugs purchased by patients without prescriptions : Crocin, Saridon, Combiflam, Nice, Disprin, D'cold, Nobel, Digene, Gelusil, Eno, Ibugisic, Metasin, Clotrimazole Creams, Baralgan, Maftalspas, Cetrizine, Amoxicilline, Azithromycin, Flucold, Vicks action 500, Brufen, voveron, Omez. Acilock, coldact, Cough Syrups like Torex, Ascoril, Ambrodil, Dilosyn, etc, Itch guard, Moov, Felini gel, Volini gel, Iodex. Vicks vaporub, Pudín hara, Clindamycin, Lomotil, Rabeprazole (Omez).

Many of the above are OTCs, but some like Azithromycin, cetrizine, Cough syrups, Rabeprazole are prescription drugs which should not be sold without prescription as per the law.

6. Reasons for buying the drugs without visiting the doctor:

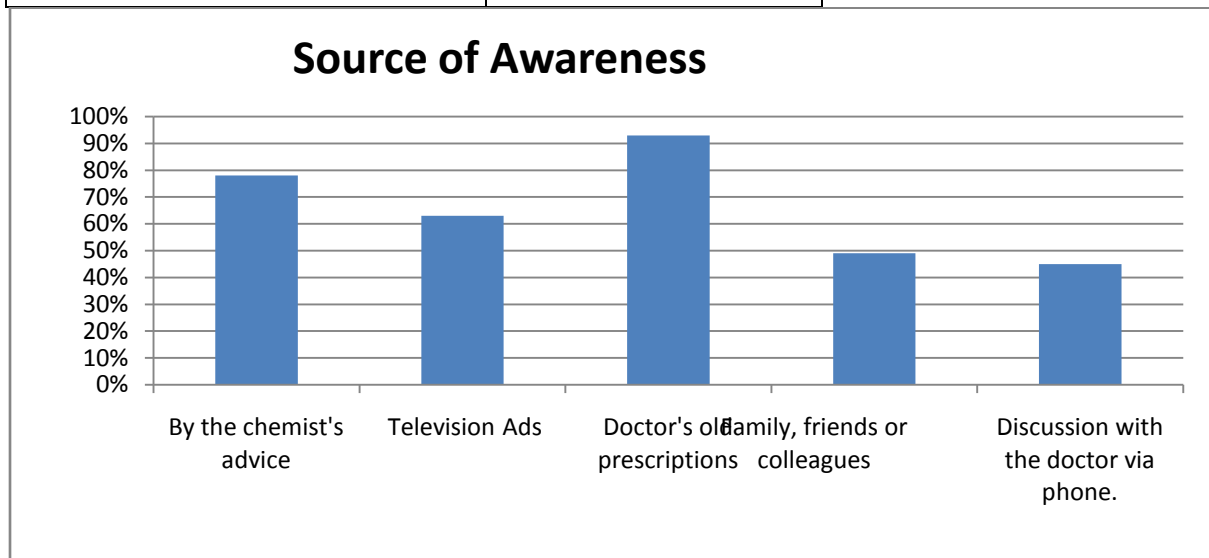
Reasons	Number	Percentage
Time	48	32.65 %
Personal Knowledge about the drugs	76	51.70%
Doctors fees are high	40	27.21
Other	0	0
Total Respondents	147	



The above graph shows that personal knowledge about the drugs was the major reason why consumers bought medicines without prescription, followed by high doctor fees & time respectively. Thus, many consumers do self medication.

7. Source of awareness of drugs purchased without doctor's prescription:

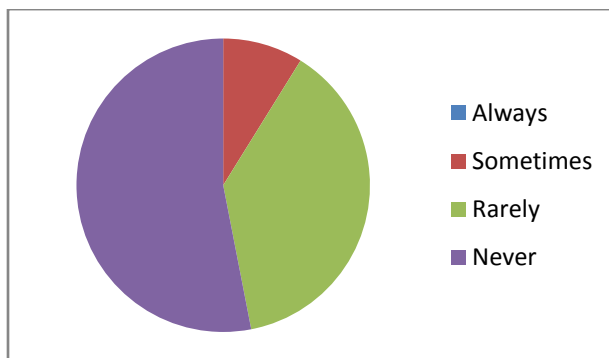
	Number	Percentage
By the chemist's advice	114	78%
Television Ads	93	63 %
Doctor's old prescriptions	137	93%
Family, friends or colleagues	72	49%
Discussion with the doctor via phone.	66	45%
Total Respondents	147	



It can be seen from the above graph that 93 percent of the patients who buy drugs without prescription, become aware of the drugs from their doctors previous prescriptions. 78% of them ask chemists for advice as to which medicine to take, and 63% gain awareness from television advertisements.

8. Chemists Insisting on Prescription before giving medicines:

Frequency	Number	Percentage
Always	0	0%
Sometimes	13	9%
Rarely	56	38%
Never	78	53%
Total	147	100%



Chemists Insisting on Prescription

It is clearly seen from the above graph that most of the chemists i.e. 53% never ask for prescriptions, whereas 38% patients said that chemists rarely ask for prescriptions. (% said that sometimes they were asked for prescriptions from chemists. None of the respondents said that their chemist always asked for prescriptions.

9. Consumer Opinion about buying OTC & Prescription drugs:

Sr. No.	Consumer Opinion	Strongly Agree (5)	Slightly Agree(4)	Neither agree nor disagree (3)	Slightly Disagree (2)	Strongly Disagree (1)	Weighted average
1.	OTC drugs are better than prescribed drugs	0	12	14	78	96	34.20%
2.	OTC drugs are completely safe	0	11	15	76	98	33.90%
3.	One should buy OTC drugs frequently to save time, money and energy.	3	7	27	88	75	36.50%
4.	Some OTC drugs may cause adverse reactions	103	76	14	7	0	87.50%
5.	Chemists should insist on prescriptions.	100	61	13	26	0	83.50%

From the above weighted calculations, it is found that: 34.20 % consumers feel that OTCs are better than prescribed drugs. Only 33.90% felt that OTCs are completely safe. Also, 36.50 % consumers felt that one should buy OTC drugs frequently to save money, time & energy. Majority of consumers, i.e. 87.50 % believed that OTC drugs may cause adverse reactions & 83.50% said that chemists should insist on prescriptions.

Findings & Conclusions:

The above data analysis has thrown light on the following findings & conclusions:

1. Medical expenses of majority of the consumers fall mainly in the range of below Rs.15000 p.a.
2. A large number of consumers do not visit the doctor every time they or their dependents fall ill. They thus rely on self medication, previous prescriptions or chemists' advice.
3. A huge majority (73%) of consumers buy medicines directly from chemists without visiting the doctor when they are ill.
4. Many drugs are bought without prescription. These include painkillers like Crocin, Maftalspas, etc. containing paracetamol, mefenemic acid, diclofenac, aceclofenac, etc, followed by topical applications like Vicks vaporub, Volini gel, Iodex, Moov gel etc. Consumers also purchased cold, flu

& fever medications like Cetrizine, crocin Cold & flu, Disprin etc. without prescription. Many consumers purchased cough syrups, acidity or gastro-intestinal medicines etc. too without prescriptions. Also, consumers purchased pimple creams like clindamycin, benzoyl peroxide, etc. without prescriptions.

5. Among the medicines some are OTCs which are allowed by law to be purchased without prescription. But as shown by the literature review, these are not free from side effects & long term consumption or incorrect diagnosis may lead to adverse effects.
6. Many of the medicines like cetrizine, azithromycin, aceclofenac, cough syrups, topical applications containing clindamycin, benzoyl peroxide, etc are prescription medicines which are not legally allowed to be sold over the counter. Yet, consumers are buying & chemists are selling such drugs without checking for valid prescriptions.
7. Both OTC & prescription medicines can be harmful if dosage is not right, or if taken for longer than required, continuous use, consumption during pregnancy or breastfeeding, incorrect self diagnosis, existing medical conditions, etc
8. The harmful effects include recurring migraines, drug resistance, adverse drug reaction, aggravation of existing condition, congenital & other defects in new born babies, and in some cases fatality.
9. A vast majority of consumers buy medicines by using old or outdated prescriptions, too. This can be hazardous if the present condition is due to other causes than the last time. Many customers go to the chemists directly & take their advice on which medicines to buy, instead of going to the doctor first. They also get influenced by television advertisements especially for cough syrups, cold & flu & headache medicines, pain balms, vaporubs, creams, powders etc.
10. The reasons for buying medicines without prescription include consumers who feel that they have self knowledge about the medicine either from past experience or by reading, hearing about it. Consumers also buy medicines without prescriptions due to lack of time i.e. doctors' appointment, waiting time, queues, distance etc. Few consumers also avoid going to the doctor in order to save money i.e. doctors fees.
11. It was found that chemists do not always insist on prescriptions. In fact, some chemists never insist on prescriptions. This could be due to fear of losing business to nearby competitors, lack of implementation of laws, to make more money, etc. There are very few chemists who insist on prescriptions before selling medicines to consumers.

12. Consumer awareness about side effects of medicines is low. Many consumers, in spite of being aware of the ill effects of self medication, still buy medicines without prescriptions.
13. Very few feel that OTC drugs are safe & that they may result into adverse reactions yet many consumers still purchase OTC drugs.
14. Most of the consumers felt that chemists should insist on prescriptions in order to curb the above problems.

Suggestions:

1. Though laws exist, the implementation of these laws is very poor. India should be inspired from developed countries, where it is mandatory for chemists to maintain records of medicines sold, prescription details, & consumer information.
2. Action should be taken against chemists who are illegally selling prescription drugs to consumers who do not carry a valid prescription. This will ensure that the law, rules etc are followed by all chemists.
3. Chemists must be motivated to conduct business ethically.
4. Drug companies must mention the side effects & instructions in their advertisements & marketing campaigns.
5. Strict laws should be designed & it should be made mandatory to manufacturers to mention on the packaging whether the drug is a prescription one or not. Like colour codes, e.g. Red for Prescription, Blue for OTCs. & consumers should be made aware of these laws.
6. The government & NGOs must create awareness among consumers about hazards of self medication.

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