Original Research Article

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A study of self medication among the adult people of the Nanded city, western India

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ABSTRACT

Background: Modern medicines are of prime importance to human being and are potentially hazardous when taken indiscriminately in the form of self medication. The main objective was to study the practice of self medication and the common ailments, drugs used, sources of information and the reasons for it.

Methods: A community based cross sectional study was carried out on 300 urban adults. From the four zone of Nanded city, one zone was selected by lottery method and from that zone one pharmacy (medical) shop was selected randomly for data collection. Adult people who bought medicines from the selected shop without any prescription were interviewed for information regarding sociodemographic factors like age, sex, residence, education, occupation etc and information about over the counter drug such as which drug they purchased, what was the main symptom of their illness, reasons for not consulting doctor, sources of information about over the counter drug etc. were collected on predesigned and pretested semi structured proforma.

Results: Out of 300 study subjects 78.3% were males and 21.7% were females. Maximum study subjects, 39.0% were from 30-39 years of age group and 23% study subjects were educated up to secondary school level. Most common symptom was fever (21%) followed by headache (15%). The commonest category of drug used for self medication was analgesic drugs (27%) and majority of study subjects said pharmacist was the main source of information about OTC drugs (48.7%). 45% study subject stated that reason for self medication was high consultation fees of private doctors.

Conclusions: Active age group male members in the family were more involved in self medication and high consultation fees of private doctors was the main reason for not consulting the doctor and practicing self medication.

Keywords: Self medication, Over the counter drugs, Adults

INTRODUCTION

Every day, everywhere, consumers reach for self care products to help them through their common health problems. Use of over the counter (OTC) drugs or self medication is a major problem in today's health care system, especially in developing countries like India.¹

Self medication is defined as the use of medication by a patient on his own initiative or on the advice of a chemist

or druggist or pharmacist or a lay person instead of consulting a medical practitioner.² The serious issues concerned with use of over the counter drugs are wastage of resources, microbial resistance, adverse drug reactions and drug-drug interactions.³ In country like India there is wide range of disease occurrence coupled with inadequate health services resulting in increased use of over the counter drugs.⁴ Modern medicines are of prime importance to human being and are potentially hazardous when taken indiscriminately in the form of self

medication. It is now evident that self medication is widely practised in India and many countries have accepted and given permission for self medication.

In 1995 the World Health Organisation (WHO) expert committee on National Drug Policies stated that self medication is widely practised in both developed and developing countries. Medication may be approved as being safe for self medication by the National Drug Regulatory Authority. Such medications are normally used for prevention or treatment of minor ailments or symptoms which do not justify medical consultation.⁵

Considering the above facts in mind, present study was carried out to study the practice of self medication and the common ailments, drugs used, sources of information and the reasons for it.

METHODS

The present cross sectional study was carried out during period of January to April 2016 among 300 study subjects. Nanded city is divided in four administrative zones by Municipal Corporation. One zone was selected by lottery method and from that zone one pharmacy (medical) shop which was not attached to any particular hospital was selected randomly for data collection. Permission was obtained from the owner of the selected medical shop to conduct the study. Adult people who bought medicines from the selected shop without any prescription were included in the study. After explaining purpose of study, informed consent was obtained from the participants.

Data was collected on predesigned and pretested semi structured proforma. Information regarding socio-demographic factors like age, sex, residence, education, occupation, income etc. was collected. Information about over the counter drug (OTC) such as which drug they have purchased, what was the main symptom of their illness, reasons for not consulting doctor, awareness of common adverse effects, its dose and schedule, sources of information about over the counter drug, frequency of buying such type of drugs, previous experience of use of drugs etc. was asked.

The study was approved by Institutional Ethics Committee of Dr. S. C. Govt. Medical College, Nanded. Data was entered in Microsoft Excel 2007 and statistical analysis such as frequency and percentages were calculated.

RESULTS

In the present study total 300 adults were interviewed for self medication. Majority (78.3%) of the study subjects were males as compared to females (21.7%). Regarding age group 39.0% were from 30-39 years of age followed by 20-29 years (25.3%) and only 3.0% were equal to or more than 60 years. Most of the study subjects were

educated up to secondary school (23.0%) followed by 18.0% up to higher secondary school and 10.0% were illiterate. 33.7% subjects were unemployed followed by unskilled workers (30.0%) and only 1.0% were professionals (Table 1).

Table 1: Socio-demographic factors of study subjects. (n=300).

Socio-demographic factors	Frequency	Percentage (%)
Age group (in years)		
20-29	76	25.3
30-39	117	39.0
40-49	60	20.0
50-59	38	12.7
≥60	09	3.0
Sex		
Male	235	78.3
Female	65	21.7
Education		
Illiterate	30	10.0
Primary school	12	4.0
Middle school	45	15.0
Secondary school	69	23.0
Higher secondary school	54	18.0
Diploma	24	8.0
Graduation and above	66	22.0
Occupation		
Unemployed	101	33.7
Unskilled	90	30.0
Semiskilled	47	15.6
Skilled	59	19.7
Professionals	03	1.0

Table 2: Main symptoms for seeking self medication.

Main symptom	Frequency	Percentage (%)
Fever	63	21
Headache	45	15
Back ache	27	09
Body ache	24	08
Cough	15	05
Cold	42	14
Burning in chest	15	05
Generalised Weakness	06	02
Sore throat	11	3.6
Abdominal pain	15	05
Loose motion	07	2.4
Skin problems	12	04
Others	18	06

Fever was the most common symptom (21.0%) followed by headache (15.0%) only 2.0% were having generalised weakness (Table 2).

Table 3: Drug categories used in self medication by the study subjects.*

Type of drug	Frequency	Percentage (%)
Analgesic	81	27
Antipyretic	62	20.6
Cough syrup	15	5
Antihistaminic and antiallergic	36	12
Antacid	21	7
Antibiotic	28	9.3
Haematinics and vitamin preparations	06	2
Anti-diarrhoeal	07	2.3
Antispasmodic	12	4
Aphrodisiac	25	8.3
Skin ointments	12	4
Nicotine replacements	14	4.6
Others	20	6.6

^{*}Multiple responses

Table 4: Source of information about over the counter drug.

Source of information	Frequency	Percentage (%)
Media advertisement	39	13.0
Old prescription for same illness	50	16.7
Friend/family member	35	11.6
Doctor	03	1.0
Pharmacist	146	48.7
Regular prescription medication	27	9.0

Table 5: Reasons for not consulting the doctor.*

Reasons	Frequency	Percentage (%)
Minor ailment, why to seek doctors advice?	82	27.3
Time saving	68	22.7
High consultation fees of private doctor	135	45.0
Poor quality of drugs in Govt. hospitals.	03	1.0
Going to doctor cumbersome	15	5.0
Available easily over the counter	66	22.0
Confidence on self medication	03	1.0

^{*}Multiple responses

Most commonly purchased drug category was analgesic drugs (27%), followed by antipyretic drugs (20.6%) and only 2.0% subjects purchased haematinics and vitamin preparations (Table 3). About half of the study subjects

(48.7%) said that pharmacist was the main source of information about OTC drug, while 16.7% were using the old prescription's information for same illness (Table 4).

Regarding reasons for not consulting the doctor, about half of study subjects (45.0%) said that because of the high cost of the private doctor they could not afford the consultation fees and almost one fourth subjects (27.3%) thought that it was not necessary to consult the doctor as it was a minor problem (Table 5).

Table 6: Response of study subject regarding OTC drug (n=300).

Response of study	Frequency	Percentage	
subject		(%)	
Frequency of buying OTC		4.0	
Once a week	12	4.0	
Once in 15 days	72	24.0	
Once a month	57	19.0	
As and when required	159	53.0	
Knowing the common adv OTC drug	erse effects of	purchased	
Yes	18	6.0	
No	282	94.0	
Knowing the dose and schedule of purchased OTC drug			
Yes	122	40.7	
No	178	59.3	
Checked expiry date on th	e drug		
Yes	154	51.3	
No	143	47.7	
Don't know	3	1.0	
Buying and using medicat	ion without co	onsulting	
doctor may lead to compli		O	
Yes	122	40.7	
No	172	57.3	
Sometimes	06	2.0	
Previous experience about	OTC drug		
Symptoms get relived	255	85.0	
Symptoms not get relived	27	9.0	
Symptoms partially get relived	18	6.0	
Have you asked chemist to give costly/ powerful medicine for illness			
Yes	116	38.7	
No	184	61.3	
No. of tablets purchased			
1	21	7.0	
2	66	22.0	
3	16	5.3	
4	107	35.7	
≥5	27	9.0	
Complete strip	63	21.0	

After asking about how frequently they buy OTC drugs, about half of the study subjects (53.0%) said that they

buy it as and when required and almost one fourth (24.0%) said they buy it once in 15 days. 94% study subjects were unaware about the common adverse effects of OTC drug that they had purchased. 40.7% study subjects were known about dose and schedule of drug they purchased. About half (51.3%) of the study subjects check expiry date on drug and 40.7% study subjects were aware of self medication may lead to complications. While asking about previous experience about OTC drug, majority (85.0%) said their symptoms get relived. 38.7% study subjects requested chemist to give costly or powerful medicine for their illness and only 21.0% study subjects purchased a complete strip of tablets (Table 6).

DISCUSSION

Pharmaceutical advances have helped the community and patients with respect to disease prevention and management. However, without exception, most pharmaceutical products have the potential to cause adverse consequences of varying severity and frequency. In the last 10 years, many medicines that were originally 'prescription only' have now become available without prescription, either from pharmacies or other general retail outlets. The easy availability of drugs poses risks to patients; thus, it is important to understand patient's choices on medications especially those used for self-medication.⁶

In this study, self medication was 64.3% in age group 20-39 years of age and 78.3% males were involved compared to females (21.7%). This indicates that active age group male members in the family were more involved in self medication. Similar results were also observed in the studies by Kulkarni et al, Shankar et al and Malvi et al. 47.8

While considering the educational status, in our study most of study subjects (22.0%) were graduates and above and only 10.0% were illiterate. Nagalingam et al carried out study of OTC drugs in North Chennai, a part of Metropolitan city and stated that 43.8% study participants were graduates. In another study in Rohtak, Northern India, author stated that 53% graduates and 21% postgraduates study subjects took self medication. Kulkarni et al studied self medication practices among urban slum dwellers of Bhavani Nagar, Hyderabad and observed that 33.33% study subjects were uneducated. This shows that illiterate as well as higher educational status people prefer to practice self medication.

In our study, fever was the main symptom for self medication (21.0%) followed by headache (15.0%), cold (14.0%) and only 2.0% subjects were having of generalised weakness.

Nagalingam et al studied peoples buying medicines without prescriptions for most common symptoms being fever (57%) followed by common cold (14%), gastrointestinal disturbances and joint pains. ⁹ They also

observed that eight study participants bought drugs for hypertension and diabetes without doctor's prescription.

Malvi et al studied self medication among the people of Bhopal region of Madhya Pradesh, India and found that self medication was used in clinical conditions like fever (36.2%), pain (32.7%), headache (25.8%), cough (24.1%), cold (20.6%) and acidity (12%). Various studies showed that people take self medication in such clinical conditions in varying proportions. 7.8,11-13

In our study most commonly purchased drug categories were analgesic drugs (27%), followed by antipyretic drugs (20.6%), antihistaminic and antiallergic (12%) whereas least commonly purchased were anti-diarrhoeals (2.3%), haematinics and vitamin preparations (2.0%). Most of the studies showed that analgesics and antipyretics, antihistamines, antibiotics, antacids, antidiarrhoeals and antispasmodic, antifungal cream etc. were commonly used for self medication. 4,9,10,12,14

Loharkar et al and Stephen et al found that even sedative drugs were used for self medication which comes under schedule H and cannot be purchased over the counter without the prescription of a qualified doctor. ^{11,13}

We observed pharmacists (48.7%) as the most common source of information about OTC drugs. Adhikary et al (79.3%), and Mohamed et al (61%) also observed pharmacists as the most common source of information about OTC drugs. ^{12,14} In contrast to this finding Stephen et al (59.5%), Chari et al (51.4%) and Kaushal et al (49.0%) stated that previous doctor's prescription were the most common sources of self medication. ^{10,11,15}

Maximum study subjects (45%) stated that they practice self medication because of high consultation fee of doctors which was the same observation by Kulkarni et al, Adhikary et al and Shankar et al. ^{7,8,12} A study conducted in rural Maharashtra by Phalke VD et al found that the major reason for self medication were economic (58.5%) and non availability of health care facility (29.3%). ¹⁶ Other common reasons for self medication were why to consult doctors for minor illness, lack of time, easy availability of OTC drugs etc.

Regarding awareness to check expiry date of drugs used for self medication, 51.3% subjects checked expiry date of purchased drugs. Adhikary et al and Malvi et al found that 93.6% and 77% subjects checked expiry date of OTC drugs respectively. In contrast to this Kulkarni et al studied self medication practices among urban slum dwellers in Hyderabad, India and found that only 4.2% subjects checked expiry date of OTC drugs.

The WHO considers self-medication as part of the self-care that helps efficient use of the burdened health care system with guidelines for the regulatory assessment of medicinal products for use in self-medication.² However this is of questionable benefit especially in less educated

society with weak health systems where most of the medical care cost is out of the pocket of the patients. The case for advocating the self-medication in our local society is quite weak, where drug resistance is emerging and even prescription medicines are readily available and can be dispensed through inexpert hands.

CONCLUSION

Active age group male members in the family were more involved in self medication, so it is necessary to educate these active age group people for circumstances where they may self-medicate and when they must consult a doctor even for minor complaints.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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