AMERICAN JOURNAL OF PHARMTECH RESEARCH

Journal home page: http://www.ajptr.com/

A Study of Self Medication Pattern In Hyderabad

Rajesh A. Kamtane*[1], G Shailendra[1], V.Jayawardhani[1]

1. *MediCiti Institute of Medical Sciences, Hyderabad, Andhra Pradesh*

ABSTRACT

Inappropriate use of drugs for self-medication leads to emergence of drug resistant pathogens and poses serious health hazards. To assess the pattern of self-medication among residents of Hyderabad city. The study was conducted in December 2011. It was a community based cross-sectional survey on a sample of 238 households, which were selected randomly. Data was collected by pre-designed questionnaire. The most common system involved was the respiratory system (21.34 %). Analgesics were most commonly used drugs for self medication (18.48%) followed by usage of antibiotics (16.80%). Most of the drugs for self-medication were obtained from drug retail outlets (35.71%) followed by friends/ neighbors'/ family practice (34.45%). The major reason for using self-medication was attitude of not to waste money on doctors' fees (37.81%) followed by inability to afford doctors' fees (25.63%).From the study it was concluded that majority of the persons go for self medication without proper knowledge of dose, adverse drug reactions, drug interactions. Hence, the issue needs to be addressed by the responsible authorities of State Pharmacy Council/Ministry of Health. The availability of drugs in informal sectors contributed to the increase in self-medication. Though self-medication is hard to eliminate, drug law enforcement and educating the public at large is vital.

Keywords: Self medication, Hyderabad.

*Corresponding Author Email: kamtane_rajesh@yahoo.com

Received 14 March 2012, Accepted 1 May 2012

Please cite this article in press as: Kamtane RA *et al.*, A Study of Self Medication Pattern In Hyderabad. American Journal of PharmTech Research 2012.

INTRODUCTION

Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment[1] This includes acquiring medicines without a prescription, resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of one's social circle or using leftover medicines stored at home[2]. There is a lot of public and professional concern about the irrational use of drugs. In developing countries like India, easy availability of a wide range of drugs coupled with inadequate health services result in increased proportions of drugs used as self medication compared to prescribed drugs [3]. Although, OTC (over the counter) drugs are meant for self medication and are of proved efficacy and safety, their improper use due to lack of knowledge of their side effects and interactions could have serious implications, especially in extremes of ages (children and old age) and special physiological conditions like pregnancy and lactation[4,5]. There is always a risk of interaction between active ingredients of hidden preparations of OTC drugs and prescription medicines, as well as increased risk of worsening of existing disease pathology. As very few studies have been published regarding self medication pattern in our community, therefore, we conducted this cross-sectional study in 238 members living in Hyderabad city to evaluate their self medication practices.

MATERIALS AND METHODS

A simple questionnaire was prepared and each member was interviewed only once in the local language after obtaining their consent. Participants' were informed regarding the purpose of the study. The study questionnaire was adapted from similar study conducted[6] previously. In case where the families were not well educated, questionnaires were filled by qualified assistants. The questionnaire contained the questions pertaining to identifications data (name) ,address, qualifications, employment, income, practice of self medication by the family, commonly used drugs as self medication, knowledge regarding dose, duration and side effects of the drugs in use, source of information about the drug, attitude towards allopathic, ayurvedic and homeopathic medicines. In the end of the study all the data was collected and analyzed (Tables 1, 2 and 3).

Present study also indicated low knowledge about dose/duration, side effects of commonly used drugs in accordance with reports of the previous studies [7, 8]

Their knowledge about the above parameters was extracted by asking direct questions or indirectly by enquiring about the drug use in sub-therapeutic dose for inadequate period or over

use of drugs, use of drugs with a potential to aggravate the existing pathology for which it is used (NSAIDS for epigastric pain, use of cold and cough remedies containing sympatho-mimetic drugs by hypertensive and diabetic patients, use of antimotility dugs for diarrhea/dysentery in children, use of hormonal pills by hypertensive or diabetic women) and concomitant use of drugs with potential interactions (NSAIDS and antihypertensive drugs or iron /calcium preparations and antimicrobials or irrational drug combinations).

RESULTS AND DISCUSSION

It was observed that the trend of self medication was more in females as compared to males. Also practice of self medication was more in educated individuals as compared to uneducated ones, this was in accordance with the previous studies. The most common system involved was the respiratory system (21.34 %) [Table-1, Figure-1]. The common illnesses for which the subjects took action were: cough, cold, fever, itching, minor burns, diarrhea, constipation, abdominal pain, indigestion, etc.

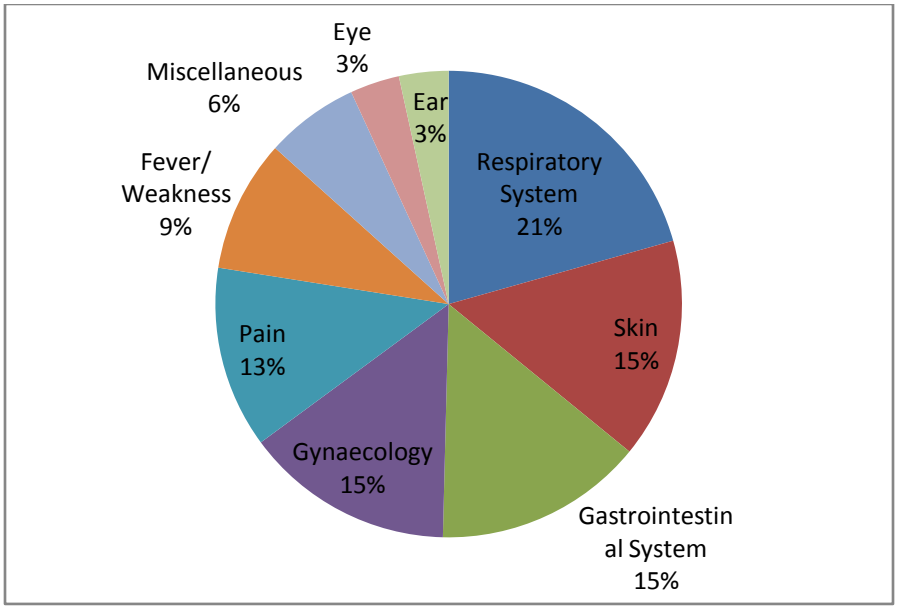

Figure 1: Type of illness for which self medication is taken

Table 1- Types of illness for which self-medication was taken. (n=238)

Sr No.	Type of illness	Number	(%)
1.	**Respiratory System**-Conditions included--- Cough, cold, fever, breathlessness, sore throat, asthama, sinusitis(pain).	**54**	**21.34**
2.	**Skin-** Conditions included--- Itching, minor burns, cuts/ bruises, any rash over body, acne, perineal rash, any skin lesions,external injuries, silencer burns, any skin infection.	**40**	**15.81**

3.	**Gastro-intestinal system-** Conditions included--- Loose motions, constipation, acidity, belching, stomach pain, stomach upset, hemorrhoids, indigestion, stomach tightness, bowel upset.	**38**	**15.01**
4.	**Gynaecology-** Conditions included--- Postponement of periods, dysmenorrhoea, bleeding during menses.	**38**	**15.01**
5.	**Pain-** Conditions included--- Neck pain, hand pain, leg pain, body pain, headache, sudden headache with body warmth, toothache.	**33**	**13.04**
6.	**Fever/ weakness-**	**24**	**9.48**
7.	**Miscellaneous-** Conditions included--- Burning micturition, lack of sleep, any illness, tingling sensation in fingers.	**17**	**6.71**
8.	**Eye-** Conditions included--- Redness of eyes, strain in eyes, pain and irritation in eyes, watering from eyes, defective vision.	**9**	**3.55**
9.	**Ear-** Conditions included--- Pain in ear, slightly decreased hearing.	**9**	**3.55**

90 (37.81%), 61 (25.63%), 46 (19.32 %), 41 (17.22 %) reported that they used self-medication because they don't want to waste money on doctors' fees, can't afford doctors' fees, lack of time to visit doctors and doctors' advice not needed for common illness respectively (Table-2, Figure-3).

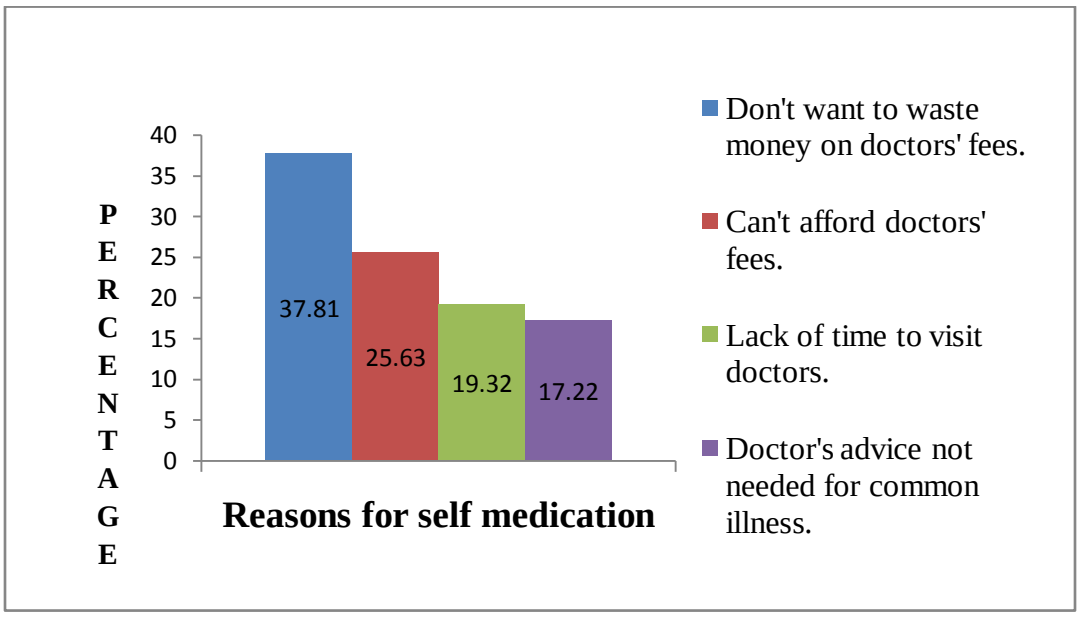

Figure 3: Response of self medication

Table 2-Pattern of self medication in study population

Sr No.	Parameter	Number	(%)
1.	**Sources for self medication-**		
	a. From pharmacist.	85	35.71
	b. From friends/ neighbors' / practiced in family.	82	34.45
	c. From previous prescriptions.	55	23.10
	d. From advertisement/ radio/ television/Internet.	16	6.72
2.	**Reasons for self medication-**		
	a. Don't want to waste money on doctor's fees.	90	37.81
	b. Can't afford doctor's fees.	61	25.63
	c. Lack of time to visit doctors.	46	19.32
	d. Doctors' advice not needed for common illness.	41	17.22
3.	**Symptoms-**		
	a. Relieved.	118	49.57
	b. Not relieved.	120	50.42
4.	**General awareness about-**		
	a. Dose/ duration-		
	I. Knows.	130	54.62
	II. Does not know.	108	45.37
	b. Side effects-		
	I. Knows.	18	7.56
	II. Does not know.	220	92.43

Table-3: Drug utilization pattern for self medication (n=238)

Sr No.	Type of drug	Number	(%)
1.	NSAIDs'	44	18.48
2.	Antibiotics	40	16.80
3.	Others (homeopathy, ayurevedic, cough syrups)	35	14.70
4.	Skin creams	25	10.50
5.	Antihistaminics	20	8.40
6.	Antacid	13	5.46
7.	Household measures	11	4.62
8.	Antidiarrhoeals	10	4.20
9.	Food supplements	10	4.20
10.	Progesterone tablets	10	4.20
11.	Antimotility/ antisecretory	4	1.68
12.	Antiseptics	4	1.68
13.	Antispasmodics	3	1.26
14.	Laxatives	2	0.84
15.	Bronchodilators	2	0.84
16.	Antiemetic	1	0.42
17.	Antihypertensives	1	0.42
18.	Sedative	1	0.42
19.	Antimalarial	1	0.42
20.	Citralka syrup	1	0.42

85(35.71%) said they obtained the drugs from drug retail outlets, which was the most common source for drugs used in self medication (Table-2, Figure-2). From the study it was observed that

the most frequently class of drug used for self medication is NSAIDs (18.48%) (Table-3). A study carried by Rajput et al also showed similar results. In their study about 85.38% preferred antipyretics and analgesics[9]. Other studies also support the results[10. 11] All the above data was found to be good enough to support the previous studies that the trend towards self medication is increasing day by day but coming to the part of knowledge regarding safety and efficacy results observed were disappointing as only 54.62% had the knowledge regarding the dose/ duration of the drug (Table 2) and only 7.56% knows the side effect of the drug taken by them as self medication and only few reported adverse drug reaction like sedation, rashes etc. The information regarding dose / duration of the drug was less. There was little or no information regarding the side effects and drug interactions which was in [6, 8] accordance with the previous studies. All the information was gathered using self administered questionnaires supported by interview in local language.

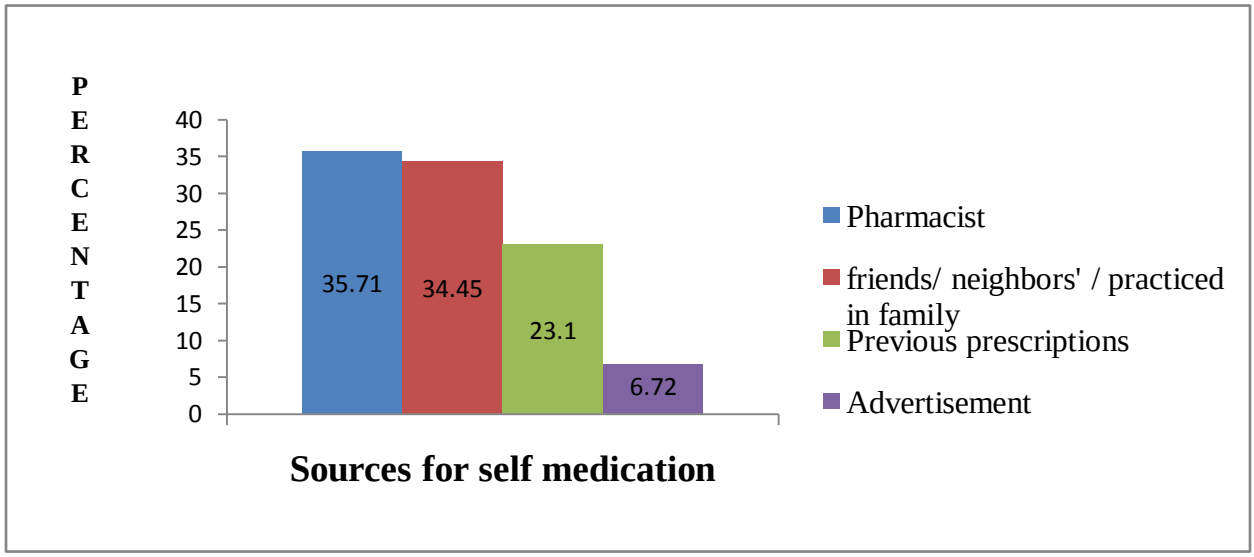

Figure 2: Sources for self medication

Trend was observed towards homeopathic and ayurvedic system of medicines for chronic illness likes joint pains, bronchial asthma, constipation, etc. Moreover herbs and homeopathic drugs were considered safe and free from adverse effects, but the risk of possible drug interactions is always with their use. However no serious side effects were reported with drugs used as self medication. However few episodes of epigastric discomfort, sedation and rashes were observed with the use of NSAIDS, cough and cold remedies.

There are various factors that play important role in influencing this type of self-medication pattern among the population. These factors include patient satisfaction with the health care providers, cost of the drugs, education level, socioeconomic factors, age and gender.

Although, self medication, using non-prescription drugs, could be beneficial to patients, healthcare professionals, the pharmaceutical industry and government, provided these drugs are used rationally. This asks for the quite important role to be played by the pharmacists regarding education of the persons for rational use of the drug as the practice of self medication often has many severe adverse effects and can lead to many problems.

Hence, provisions should be made for proper education regarding rational use of the drug by the consumers. Apart from community education, safety and efficacy of OTC drugs must be assured, so that these products could be safe even in the event of improper use. For registration as an OTC drug, specific efficacy trials may be conducted in real self-medication situation. Due to the difficulty in accessing health care services, self medication is often the simplest option for the patients. Since traditional practitioners are easily accessible, people also turn to them for their health care needs. However, traditional practitioners need to be educated about when to refer a patient for more specialized care.

Though the study has some shortcomings like recall bias, bias by the professionals who collected the data, not revealing the truth by the respondents, and not including drugs used for self-medication, we believe the study addresses an important issue as self-medication could be considered as one of the public health problems in a population where there is lack of wide controlled medical education.

The study showed that there is an influence of other individuals in the practice of self medication (34.45%). This reveals the existence of bad trend in the community where non-professionals recommend drug use and needs to be discouraged through public education. This finding is similar with the study done in Brazil where 51.2% of self-medication used was recommended by third party [12].

CONCLUSSION

In conclusion, a significant number of people use self-medication. The major reason for self-medication is its relative lower cost. Drug retail outlets are cited to be the major sources of drugs that are used for self-medication and the availability of drugs in informal sector contribute to the increase in the practice of self-medication. Therefore, though self-medication is difficult to eliminate, intervention such as dissemination of information about problems of self-medication and drugs at large, through media, health education sessions, and posters etc. can be made. Drug law enforcement authorities need to have clear and effective legislation on drug handling and dispensing so that policies can be implemented and, necessary measures may be taken on illegal

purveyors of drugs. Ministry of health and the regional health bureau may need to facilitate ways so as to increase health service delivery institutions so that more people can have access for utilizing health facilities. Finally, we recommend further studies have to be done on self-medication.

REFERENCES

1. Montastruc JL, Bagheri H, Geraud T, Lapeyre MM. Pharmacovigilance of self medication. Therapie 1997; 52:105-10.
2. FilhoL, Antonio I, Costa Lima MF, Uchoa E, Bambui project: a qualitative approach to self-medication. Cad Saude Publica 2004: 20:1661-69.
3. Shankar PR, Partha P, Shenoy N. Self-medication and non-doctor prescription practices in Pokhara valley, Western Nepal; a questionnaire based study. BMC Fam Pract 2002; 3:17.
4. Murray MD, Callahan CM. Improving medication use for older Adults: An integrated research agenda. Ann Intern Med 2003; 139:2425-9.
5. Choonara I, Gill A, Nunn A. Drug toxicity and surveillance in children. Br J Clin Pharmacol 1996; 42:407-10.
6. Sharma R, Verma U, Sharma CL, Kapoor B. Self medication among urban population of Jammu city. Indian J Pharmacol 2005:37: 37-45.
7. Heineck I, Schenkel EP, Vidal X. Non-prescription drugs in Brazil. Rev Panam Salud Publica 1998; 3:385-91.
8. Hughes L, Whittlesea C, Luscombe D. Patients knowledge and perceptions of the side-effects of OTC medication. Clin Pharmacol Ther 2002; 27:243.
9. RajputMS, Mathur V, Yamini S, Nair V. Pharmaco epidemiological study of self medication in Indore city. Indian J Pharm Pract 2010 3:25-31.
10. Wilbur K, Salam SE, Mohammadi E. Patient perceptions of pharmacist roles in guiding self-medication of over-the-counter therapy in Qatar. Patient Preference and Adherence 2010: 4: 87-93.
11. Verma RK, Mohan L, Pandey M. Evaluation of self medication among professional students in North India: proper statutory drug control must be implemented. Asian J Pharma Clin Res. 2010 : 3: 60-64
12. Vilarino JF. Self-medication Profile in the city of South Brazil. Rev Saude Publica 1998;32(1):43-49.