ASSESMENT OF SELF-MEDICATION AMONG PATIENTS ATTENDING COMMUNITY PHARMACISES IN ERODE, INDIA

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ABSTRACT

This is a community based cross sectional study aimed together information about the prevalence of self-medication at Erode, Tamil Nadu carried out during May to Dec 2010. It has been observed an extensive supply of medicines without prescription including those used for serious illness. The reason to take up the present study was to carry out head to head comparison of demographic variables with self-medication. Objective of the study was to determine the extent and pattern of self-medication among patients attending pharmacies in Erode district and to note any association of self-medication variables with demographic factors. To reach the required sample size, 551 respondents were selected. Data's are collected through a prepared questionnaire. All data were coded, entered, and analyzed using statistical package for Social sciences program (SPSS) version 16.1. (Descriptive results were expressed as frequency and percentage $P<0.05$ were accepted as statistically significant. Pearson Chi-Square was used to test for significant correlation.) The percentage of patients who were seeking self medication study was approximately 62%. Most patients were seeking self medication for headache 14.72%, Fever 14.29%, urinary tract infections 10.13% etc, the drugs most commonly dispensed or purchased on a self medication basis were NSAID'S 33.7%. It was found that there is a significant association between frequencies of practising self-medication, reason for practising self-medication, source for the choice of drug with demographic characters. Patient health awareness programs and pharmacist continuing education are necessary. In simple way we can create awareness about self-medication through medias like news paper, magazine, TV and etc.

Keywords: Self-Medication, OTC, Community Pharmacies.

INTRODUCTION

William Osler said that "a desire to take medicine is perhaps the great feature which distinguishes man from animals"[1]. Self medication is defined as obtaining and consuming drugs without the advice of physicians either for diagnosis, prescription or surveillance of treatment. This include acquiring medicines without a prescription, resubmitting old prescriptions to purchase medicines, sharing medicine with relatives or members of one's social circle or using left over medicines stored at home. In simple definition we can say that self medication is the self administration of medication to treat self-recognized illness or symptoms medication not prescribed by or in manner not directed by a physician.

OTC products provide treatment in areas which do not required or desired importance or medical intervention. Self medication has been used very widely to combat behavioral and psychological problems such as smoking. Pharmacists can help patients to choose the right OTC smoking cessation products to help them successfully quit smoking. That is up to 3,00,000 people each year who are able to reduce their risk of lung cancer, emphysema, stroke, heart attack and complications in pregnancy because of self-care products that help them stop. Such readily available products, non-prescription nicotine etc., help people to quit smoking[2].

The problem with self-medication is that it is based on self-diagnosis!!!!! Also, the products available for self-medication are mostly designed and intended to only treat the symptom of a minor problem until it goes away on its own, and is not designed or intended to treat the cause

This is the practice whereby individuals treat their ailments and conditions with medicines which are approved and available without prescription, and which are safe and effective when used as directed. Responsible self-medication requires that medicines used are of proven safety, quality and efficacy. Medicines used are those indicated for conditions' that are self-recognizable and for some chronic or recurrent conditions (following initial medical diagnosis). In all cases, these medicines should be specifically designed for the purpose, and will require appropriate dose and dosage forms[3].

To determine the extent and pattern of self-medication among patients attending pharmacies in Erode District to assess the perception of community pharmacist on self-medication to note any association of self-medication with demographic factors

METHODS

A cross sectional study design was carried out at community pharmacies in Erode, Tamilnadu, over a 7 month period May to Dec, 2010. Randomly selected 10 pharmacies in Erode district has been chosen for the site of the study. Sample size calculation was done to determine the population required for the study. Community pharmacies, Customers who bought drugs from pharmacy without prescription are included in the study,

The draft questionnaire was prepared for customers and pharmacists based on the input from the pharmacy. These questionnaires were submitted to departmental research panel as well as institute research panel and comments were noted. The validated questionnaire was provided to around 20 patients and 10 pharmacists to confirm the understanding and acceptability. Changes were made and newly prepared questionnaire was used throughout the study. Questionnaires were filled by asking each question verbally to the customer in Tamil.

Contents of the questionnaire were: Demographic details, how often customers practice self-medication, System of treatment they prefer for self-medication, Source from where they came to know about choice of drug, Reasons for practicing self-medication, Perception about self-medication practice.

RESULTS

551 respondents were selected. From the 1050 patients interviewed, 650 were practicing self-medication. Out of 650, filled questionnaire 551 completely filled questionnaire were selected for the data collection of our study. The prevalence of self medication in our study was 62%(650) cases out of 1050. Table No: 1 summarises about the demographic characters of the study.

It was found that irrespective of the genders both male 50% and female 50% equally practice self medications. Majority of the customers 38.11% were aged between 36-45 years, 22.32% were aged 15-25 yrs. 21.05% were aged 46-55 year. 12.70% were aged above 55 and only 5.80% were aged below 16. 65% were married and 35% were unmarried. 48% were employed 29% were unemployed & 23% students. Income status of the employees per month mentioned were the following.15% earns Rs.1000-5000,

14% earns Rs.5000-10,000, 10% earns above 10,000 and 10% earns below 1000. Majority of respondents were literate 93.46% and 6.53% were illiterate of them but the educational level was low. 30% were below 10th, 19% were 10th, 13% were had diploma, 11% were UG level, and 8% were having PG.

Table 1: Demographic characters of the study data

Demographic factors	Categories	Total (%)
Gender	Female	276(50%)
	Male	275(50%)
Age	16-25	32 (5.80%)
	26-35	123 (22.32%)
	36-45	210 (38.11%)
	46-55	116 (21.05%)
	Above 55	70 (12.70)%
Marital status	Married	357(65%)
	Unmarried	194(35%)
Employment	Employed	266(48%)
	Students	127(23%)
	Unemployed	158(29%)
Income	Unemployed/students	285(52%)
	Below 1000	53(10%)
	1000 to 5000	80(15%)
	5000 to 10000	76(14%)
	Above 10000	57(10%)
literacy status	Literate	515 (93.46%)
	Illiterate	36 (6.53%)
Education	Below 10th	164(30%)
	10th	102(19%)
	12th	68(12%)
	Diploma	72(13%)
	UG	63(11%)
	PG	46(8%)

Table No: 2 Majority of respondents were taking self medication rarely 44.82%, 31.39% were practising self medication occasionally 18.87% were practising self medications monthly 4.90% were practising self medication weekly.

Majority of respondents used allopathic system 94.2% medication for self medication 5.4% used ayurvedic system of medication and only 0.4% used homeopathic system of medication. Simplicity of the disease 39.92% was the major reason for taking self medication reported by majority of the respondents. 19.78% reported treatment cost is high in hospitals, 15.60% had previous experience with the disease, 17.05% reported they practice self medication because of lack of hospitals in the nearest place, 4.71% practice self medication because they knew about the drug and disease, only

2.90% reported lack of trust in medical service in the reason for self medication.

There were various sources reported from where they came to know about the medication. 19.05% reported family, friends, 34.48% responded mentioned pharmacist, 29.76% respondents selected previous prescription 11.43% respondents mentioned self decision and 4.36% reported media. 74.8% of respondents were aware that the possible complication may occur by practicing self medication without proper diagnosis and 25.2% were not aware about the complications. 78.4% were aware about the pregnancy complications of self medications and 21.6% were not aware about this. 78.76% did not know the contraindication, side effects, and precautions of the drugs they take only 21.23% had knowledge about the drugs they used.

Table 2: Customers perception about self-medication practice

Self-Medication data	Categories	Total (%)
How often they take self-medication	Occasionally	173 (31.39%)
	Weekly	27 (4.90%)
	Monthly	104 (18.87%)
	Rarely	247 (44.82%)
System of self-medication	Allopathic	519 (94.2%)
	Ayurvedic	30 (5.4%)
	Homeopathy	2 (0.4%)
Reason	Disease is simple	220 (39.92%)
	Treatment cost is high in hospitals	109 (19.78%)
	There was a previous experience with the disease	86 (15.60%)
	Patient knows about the drug and disease	26 (4.71%)
	Lack of hospitals in the nearest place	94 (17.05%)
	Lack of trust in medical service	16 (2.90%)
	Self decision	63 (11.43%)
Source	Media	24 (4.36%)
	Drugs directory	5 (0.91%)
	Family, friends or neighbors	105 (19.05%)
	Pharmacist	190 (34.48%)
	Previous prescription	164 (29.76%)

Figure. No. 1: describes about the distribution of self medicated diseases and drugs used for self-medications most frequent complaints expressed by the respondents were headache 14.72%, fever 14.29%, UIT 10.13%, Diarrhea 8.65%, Diabetic 6.31% BP 4.45%, tooth pain 4.25%, Breathing problem 3.87%, Cardiac problem 3.35%, vomiting 3.06%, Cold 3.01%, Back pain 3.01%, weight loss 2.68%, cough 2.49%, Eye disorder 2.44%, skin problem 2.39%,gastric problems 2.10%, pimples 1.43%, wound 1.34%, insomnia 1.20%, constipation 1.10% Dandruff 1.00%, ear infection 0.72%, stomach ache 0.62%, mental disorder 0.43%, respiratory tract disease 0.24%, weight gain or loss 0.19% etc.

Figure. No. 2:, describes Common drugs used were discr: NSAID 33.7% GI medication 11.9%, Antibiotic 10.3%, Cardiac drug 7.8%, Topical treatment 7.3%, Endocrine drugs 5.7%, Drops 3.2% Antihistamines 3.2%, Antiemetic 3.1% Syrups 2.8%, vitamins 2.7% and other drugs 7.1%.
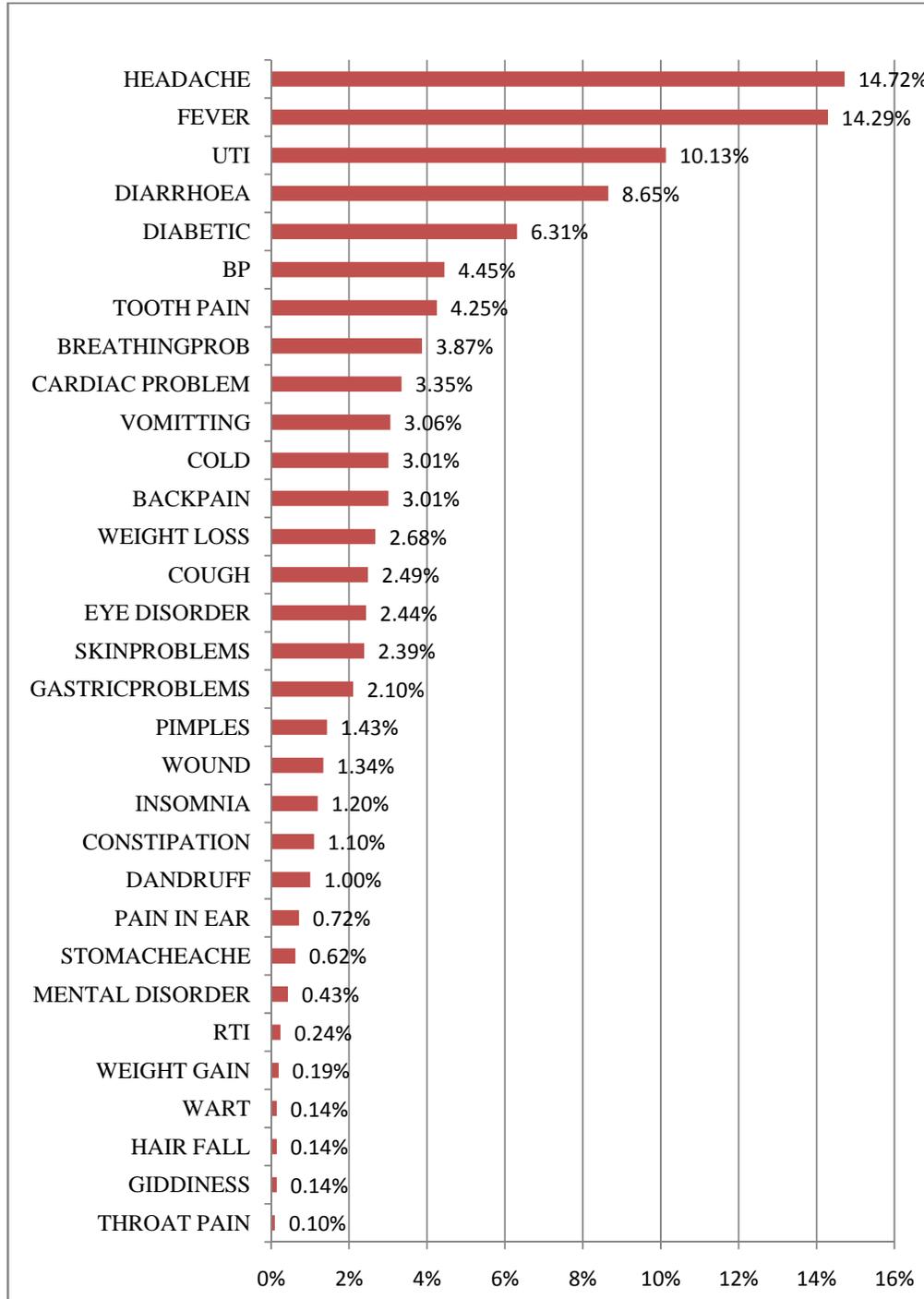

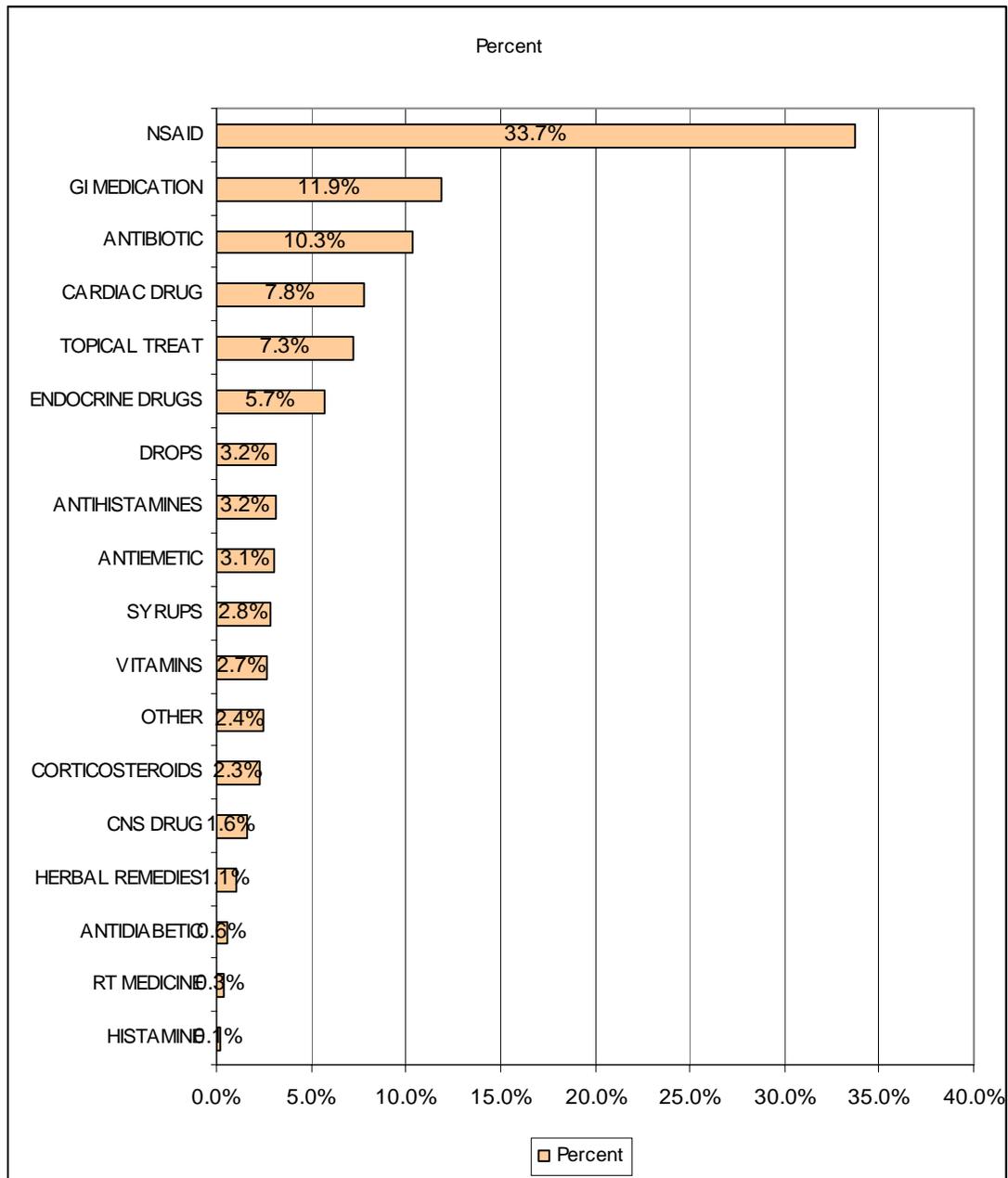**Fig. 1: Distribution of self medicated diseases**

Fig. 2: Frequencies of drugs commonly used for self medication

DISCUSSION

In this study, self medication was reported to be extensively practiced 62% among the studied population. In similar study done in Nepal, the prevalence was 59%, in Ethiopia 26.2%[4].

Our results indicated both gender were extensively practicing self medication. In other studies carried out in other parts of the world, the influence of gender on self medication practice was controversial. In a study conducted in West Nepal males were practicing self-medication more compared to females[5]. In another study it is reported that females are practicing more self-medication[6].

Highest proportions of volunteers were aged between 26-40 years who practiced self medication. This is similar as like Nepal study

where they were aged between 20-39 years and in Ethiopia 15-49 years[4].The reasons cited for self medication by respondents in this study were similar to those reported in other studies[5, 7]. The most commonly reported reason was simplicity of the illness. Our results indicated that previous prescription and pharmacists were the source from where they get information about the choice of drug for practicing self medication. This is similar to the study conducted in east Jakarta[8].

Headache and fever were the most common diseases for which respondents' practice self medication. Paracetamol and NSAIDS were the most common type of drugs used for self medication. These results are similar to other studies conducted in other countries [5, 9]. There may be two major problems regarding self-medication with analgesics. The first is the possible risk of

nephropathy and possible drug-induced gastric ulceration. The second is overuse of analgesics like paracetamol, aspirin or other NSAIDs especially when given in combination since they increase the risk of chronic toxicity among patients. Similar adverse results of self-medication with antibiotics have been reported in other countries[2, 3].

CONCLUSION

It was found that there is a significant association between frequencies of practising self-medication, reason for practising self-medication, source for the choice of drug with demographic characters. Irrational self medication and OTC practices might cause serious drug interactions or adverse reactions among patients taking medications for chronic diseases.

Pharmacists have to inform and educate customers. A forum or work shop should be organized for community pharmacists regularly to update and improve their knowledge. In simple way we can create awareness about self-medication through Medias like news paper, magazine, TV etc.

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