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Evaluation of Self Medication Practices Among Medical and Non Medical Individuals.

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ABSTRACT

Self-medication is consumption of medicinal products for treating diseases without a prescription resulting in wastage of resources, increased drug resistance and causes health hazards. The aim of this study is to evaluate the self-medication practices among medical and non-medical participants. A cross-sectional study was carried out among 150 non-medical individuals, 130 medical-undergraduates and 104 postgraduates. A questionnaire regarding self-medication was administered and the response was obtained. The common reasons for self-medication among non-medicals was busy schedule (63.33%), for UGs quick relief (49.23%), and PGs it was ease and convenience (77.88%). All nonmedical participants were neither aware of problems with self-medication nor had knowledge regarding drugs. Among undergraduates 71.53% were aware of dosage schedule, 53.84% about side effects, whereas all postgraduates had knowledge and awareness associated problems. Indications for self-medication were headache, body pain, cough, cold and gastritis. In addition medical students used it for pharyngitis, vomiting, diarrhea, bronchial asthma and skin manifestations. Knowledge and awareness of self-medication was lacking among non medical participants, it is important to educate them in terms of drug utility. Though undergraduates are taught about drugs, still their knowledge regarding dosage and side effects was only 70%.Emphazises on rational use of drugs is a must.

Keywords: Self – medication, non – medical individuals, undergraduates, postgraduates.

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INTRODUCTION

Self – medication is defined as the consumption of medicinal products with the purpose of treating symptoms, disease or even promoting health without prescription. It also includes the use of old prescriptions to purchase medicines, sharing medicines, using leftover medicines stored at home [1].

The WHO Expert Committee on National Drug policies stated: "Self-medication is widely practiced in both developed and developing countries. Medications may be approved as being safe for self-medication by the national drug regulatory authority. Such medicines are normally used for the prevention or treatment of minor ailments or symptoms, which do not justify medical consultation. In some chronic or recurring illnesses, after initial diagnosis and prescription, self-medication is possible with the doctor retaining an advisory role" [2].

The OTC (over the counter) drugs are used, but their inappropriate use results in wastage of resources, increases resistance of pathogens, cause adverse drug reactions and drug dependence [3]. Media, advertising, education influence it. Self-prescription by physicians and medical students represent serious issues for themselves [4].

This study was undertaken to determine the reasons, pattern and awareness of self-medication practices among non-medical and medical participants.

MATERIALS AND METHODS

A cross sectional study was conducted by the department of Pharmacology, Sri Devaraj Urs Medical College, Kolar from July to September 2012.The protocol and questionnaire were approved by institutional ethics committee. Study population consisted of consenting non medical individuals visiting the RL Jalapa hospital, medical undergraduates (UGs) and postgraduates (PGs). Participants of either gender who were willing to give consent were randomly recruited and the questionnaire was administered. Those who were unable to understand, the questions were explained to them in local language. Twenty minutes time was given for them to complete. It consisted of 25 questions pertaining to demographic characteristics, practice of self medication, commonly consumed drugs, source of information regarding the drug, its dose and side effects, knowledge regarding allopathic, homeopathic and ayurvedic system of medicines and also awareness regarding development of resistance to antimicrobials and tolerance.

Demographic data are expressed as mean±SD. Quantitative data expressed as percentages.

RESULTS

Total respondents in this study were 384, of which 150 were non – medical individuals, 130 were UGs (finished or pursuing II year) and 104 PGs of different specialities.

Table-1 shows the demographic characteristics of the study population. Males were more among non – medical participants and postgraduates whereas it was equal number in

undergraduates. The number of illiterates and graduates were almost equal in non – medical group.

Table: 1 Demographic characteristics of the study population

	Non–medical individuals n =150 (%)	Undergraduates n=130 (%)	Postgraduates n=104(%)
Gender			
Male	89 (59.3)	65 (50)	55 (52.88)
Female	61 (40.7)	65 (50)	49 (47.11)
Age (mean±SD)	36.09±10.13	20.96±2.03	27.17±2.14
<20	02 (1.3)	42 (32.3)	-
20 – 40	98 (65)	88 (67.7)	103 (99)
>40	50 (33.3)	-	01 (0.9)
Education			
Illiterate	39 (26)	-	-
<10th Std	26 (17.3)	-	-
10 – 12th Std	43 (28.7)	-	-
Undergraduate student	-	130 (100)	-
Graduates	42 (28)	-	-
Postgraduate student	-	-	104 (100)

Table 2 shows the pattern of self – medication among participants. Majority of them practiced allopathy. Most of the non – medical individuals purchased medicines, did not check expiry date and used the drugs prescribed to their family members. None were aware of problems associated with self – medication. Most of undergraduates and all postgraduates had knowledge and were aware of problems associated with self – medication. They had access to drugs by both free and purchase.

Table: 2 Pattern of self – medication

	Non-Medical individuals(%)	Undergraduates (%)	Postgraduates (%)
System of medicine used			
Allopathic	147 (98)	127 (97.69)	104 (100)
Homeopathic	03 (2)	09 (6.92)	01 (0.96)
Ayurvedic	23 (15.33)	06 (4.61)	04 (3.84)
Checked expiry date			
Yes	09 (6)	128 (98.46)	101 (97.11)
No	141 (94)	02 (1.53)	03 (2.88)
Used drugs prescribed for family members			
Yes	24 (16)	37 (28.46)	15 (14.42)
No	126 (84)	93 (71.53)	89 (85.57)
Type of access			
Free	-	01 (0.76)	01 (0.96)
Purchased	147 (98)	77 (59.23)	23 (22.11)
Mixed	03 (2)	52 (40)	80 (76.92)
Knowledge regarding			
Dose	-	93 (71.53)	104 (100)
Side effects	-	70 (53.84)	103 (99.03)
Neither	150 (100)	26 (20)	-
Aware of problems			
Yes	-	102 (78.46)	104 (100)
No	150 (100)	28 (21.53)	-

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The most common reason for practicing self – medication by non – medical individuals was their busy schedule and they felt doctor's consultation was not necessary for common illness. For undergraduates and postgraduates it was quick relief and convenience respectively (figure 1).

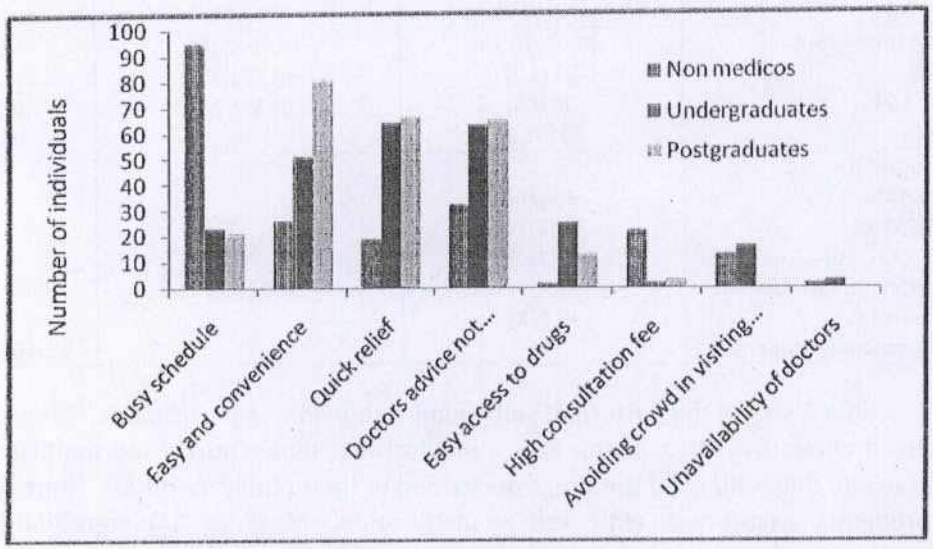

Fig.1 Reasons for self – medication

Table 3 represents the various source of information in all the groups.

Table: 3 Source of information

Source of information	Non–medical individuals(%)	Undergraduates (%)	Postgraduates (%)
Drug advertisements	-	12 (9.23)	09 (8.65)
Pharmacist	72 (48)	40 (30.76)	13 (12.5)
Friends	85 (56.66)	46 (35.38)	72 (69.23)
Parents	18 (12)	49 (37.69)	03 (2.88)
Neighbours	21 (14)	03 (2.30)	-
Internet	-	26 (20)	44 (42.30)
Prescription of previous illness	-	59 (45.38)	27 (25.96)
Medical representatives			
Books	-	30 (23.07)	34 (32.69)
	-	42 (32.30)	92 (88.46)

Table 4 shows the numerous indications for self medication. The respondents in all categories self medicated for headache.

Analgesics were the commonly used followed by medications for cold and cough. Antimicrobials were frequently used by postgraduates (figure 2).

The frequency of use medications was more in medical students. 51.53% of undergraduates and 56.73% of postgraduates practiced self medication 2 – 3 times per month. It was 33.3% in non medical individuals.

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Table: 4 Indications for self – medication

Clinical conditions	Non–medical individuals (%)	Undergraduates (%)	Postgraduates (%)
Headache	140(93.33)	109(83.84)	102(98.07)
Cold	99	96	101
Body pain	89 (59.33)	54 (41.53)	94 (90.38)
Acidity	54 (36)	45 (34.61)	101(97.11)
Cough	45(30)	83(63.84)	95(91.34)
Diarrhoea	20(13.33)	49(37.69)	94(90.38)
Vomiting	08(5.33)	40(30.76)	81(77.88)
Sore throat	07(4.66)	61(46.92)	92(88.46)
Asthma	03(2)	07(5.38)	12(11.53)
Skin symptoms	-	15(11.53)	36(34.61)
Ear symptoms	-	08(6.15)	36(34.61)
Joint pain	-	03(2.30)	-

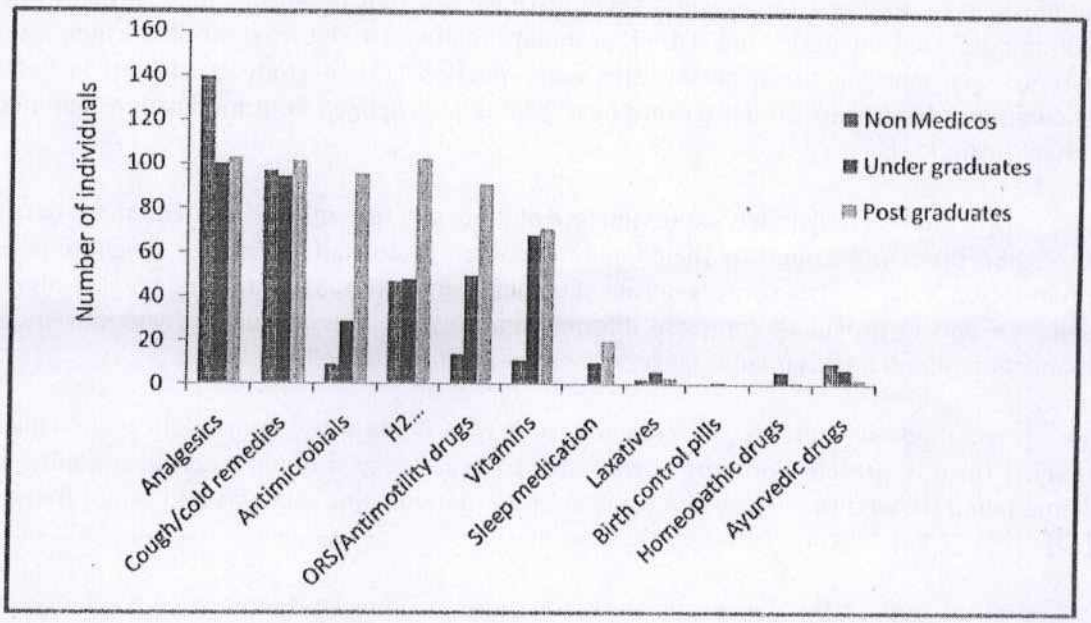

Fig.2 Drug utilization pattern (Self – medication)

DISCUSSION

Self medication is a form of self care and is a big issue internationally [4]. It helps one to manage minor symptoms with simple remedies [5]. Those medicines sold directly to a consumer without a prescription are called over the counter (OTC) drugs [6]. The safety and development of dependence of OTC drugs is based on the dosage schedule. Common OTC medications, though considered risk – free and useful, excessive use can lead to serious side effects.

In this study we have randomly recruited the people who practiced self – medication and compared its pattern among non – medical and medical individuals.

Analgesics were the commonly used drugs for headache and myalgia. Similar results were found in studies conducted by James et al, Sawalha AF, Saleem et al [7-9].

None of non – medicals had knowledge about drug profile, serious adverse effects, development of tolerance and resistance. Their source of information was mainly friends. A study conducted in Haryana also revealed the same [10]. Both educated and uneducated classes equally practiced self medication,but the study conducted by Shevta S showed that the prevalence of practicing self medication was high in educated group [11].

Majority of medical students resort to self medication. We have also report that 20% of undergraduates were unaware of dose and side effects and 21.53% of them about the problems associated even after exposure to pharmacology and clinical postings. Among the postgraduates use of antimicrobials, drugs for insomnia and laxatives was high, which may predispose to drug resistance and addiction. These resistant organisms may spread in the community causing infections. Other problems related to self-medication include drug interactions, masking the diagnosis and superinfection [12]. A study conducted in Brazil showed that healthcare students were having more knowledge about medication than non – healthcare [13].

Non medical individuals expressed lack of time as a reason, which forced them to use the same drugs prescribed to their family members or consulting friends, neighbours or pharmacists. Pharmacists play a key role in helping people to make informed choices about self-care and in providing complete information. This requires a greater focus on illness management and health maintenance, rather than on product selling [14-16].

For medical students the commonest reason being easy, convenience and quick relief. Previous prescription was their main source. Study among medical students in Ahmedabad showed that important source of information being relatives and senior friends [17].

This is one of the dangerous marker because at times students may not be able to correlate the symptoms and end up in wrong diagnosis for which they consume drugs of previous prescriptions which are inappropriate, leading to serious adverse effects or worsening of the disease.

CONCLUSION

From the present study, it can be concluded that self – medication is commonly practiced by medical as well as non – medical individuals. The comparison among medical and non medical individuals showed that the pattern of usage of antimicrobial agents and sedatives was highly inappropriate in medical individuals inspite of having knowledge and awareness regarding these drugs. So, there is a need to educate them regarding rational use of medicines. Since non – medical individuals lack the knowledge and awareness regarding the use of drugs, pharmacists play a major role as an important source of information about drugs for the community.

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