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PERCEPTIONS AND PATTERNS OF SELF MEDICATION AMONG MEDICAL UNDERGRADUATES IN SOUTH INDIA

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ABSTRACT

Self medication is common in developing countries because of easy availability of over the counter drugs. Medical students differ from the general population as they are the future prescribers and have more knowledge about diseases and drugs. There are very few studies on self medication among medical students in this region. This was a cross-sectional, questionnaire based study conducted at two medical colleges in South India in May 2013. Prior approval was taken from the Institutional Ethics Committee to conduct the study. Verbal consent was obtained from the students. Participants were explained the purpose of study and were requested to complete and return the questionnaire immediately. The selected students were those who have completed fifth term (finished pharmacology exam) and who taken self medication in the past six months. The questionnaire was pre-tested in junior faculty and was suitably modified before administering to the respondents. The questionnaire included were basic demographic details, indications for self medication, type drug/drug group used, sources of drug information used, reasons for favoring self medication The information was recorded and analyzed using Microsoft Excel (2007 version). A total of 205 students were enrolled for the study, out of which 195 (95.12%) completed the questionnaire. 177 (90.2%) students had self medicated in the last six months. Self

medication was higher in females when compare to male students. Cold/cough (57.6%), fever (53.6%) and sore throat (47.4%) were the most common symptoms for which self medication was taken. Paracetamol (59.3%), anti-tussives (54.2%), antibiotic (49.1%), analgesics (46.3%) were the most common drug/drug groups used for self medication. The most common reasons for self medication were students didn't want to spend money on doctor's fees(50.8%), time saving(43.5%), sufficient pharmacological knowledge (38.4%) and the illness was considered as mild to consult a physician(37.2%). The most common sources of drug information were from the pharmacist (54.2%), from prior prescription (38.9%) and textbooks (31%). The prevalence of self medication was high in the present study. Patterns of self medication were inappropriate with inadequate knowledge. Appropriate educational measures should be taken to educate medical students and made aware about the implications of self medication.

Key words: Self-medication, over the counter drugs, rational use, medication knowledge.

INTRODUCTION

Self-medication is defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment.[1] In developing countries like India, many drugs are dispensed over the counter without medical supervision. Use of self-medication is highly prevalent in India both urban and rural community varying from 32.5% to 81.5%.[2,3] Self medication is practiced globally with varied frequency. [4,5]

Over the counter drugs are meant for self medication and are of proved efficacy and safety, but 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.[6,7] Responsible self-medication is helpful in the prevention and treatment of ailments that do not require medical consultation and provide a cheaper alternative treatment for common illnesses. But inappropriate self medication results in prolonged morbidity, increase in expenditure, emergence of drug resistance, increased adverse drug reactions which sometimes may be serious.[8]

To improve the knowledge and practice of self-medication, it is important to have data regarding self-medication, so that appropriate interventions can be planned and regulations can be implemented. There are very few studies conducted on prevalence and patterns of self-medication among medical undergraduates in this region. The present study conducted to

assess the pattern and prevalence of self-medication among the medical undergraduates in South India.

MATERIAL AND METHODS

This was a cross-sectional, questionnaire-based study conducted at two medical colleges in South India in May 2013. Prior approval was taken from the Institutional Ethics Committee to conduct the study. Verbal consent was obtained from the students. Participants were explained the purpose of study and were requested to complete and return the questionnaire immediately.

The selected students were those who have completed fifth term (finished pharmacology exam) and who taken self medication in the past six months. More than one answer was allowed in some questions. The questionnaire was pre-tested in junior faculty and was suitably modified before administering to the respondents. The questionnaire included were basic demographic details, indications for self-medication, type drug/drug group used, sources of drug information used, reasons for favoring self-medication The information was recorded and analyzed using Microsoft Excel (2007 version). The results are explained in frequency and percentage.

For the purpose of the study, certain terms were defined. Self-medication was defined as the use of over-the-counter or prescription drugs for self-treatment, without consulting a healthcare professional (doctor). A doctor was defined as any person who is medically qualified to prescribe medications. It included practitioners of modern scientific medicine (MBBS) as well as practitioners of alternate healthcare systems (BAMS, BHMS). Medication was defined as any substance used for treatment or prevention of disease.

RESULTS

Table 1: Characteristics of the study population

Variables	Self medication		Total
	Yes	No	
Male	86	7	93
Female	91	11	102

A total of 205 students were enrolled for the study, out of which 195 (95.12%) completed the questionnaire. 177 (90.2%) students had self medicated in the last six months. The demographic characteristics of the students is shown in table 1.

Self medication was higher in females when compare to male students.

The most common symptoms for which self medication was taken is shown in table 2.

Table 2: Common symptoms for self-medication

Symptom	Respondents (%)
Cold/cough	102 (57.6)
Fever	95 (53.6)
Headache	69 (38.9)
Sore throat	84 (47.4)
Diarrhea/Constipation	56 (31.6)
Menstrual cramps	48 (27.1)
Vomiting	39 (22)
Body pain	55 (31)
Anxiety/lack of sleep	32 (18)
Rash/allergies	24 (13.5)
Others	5 (2.82)

Cold/cough (57.6%), fever (53.6%) and sore throat (47.4%) were the most common symptoms for which self medication was taken.

The common drug/drug groups used for self medication is shown in table 3.

Table 3: Common drug/drug groups used for self-medication

Drug/drug groups	Respondents (%)
Paracetamol	105 (59.3)
Anti-tussives	96 (54.2)
Antibiotics	87 (49.1)
Analgesics	82 (46.3)
Antacids	57 (32.2)
Antispasmodic	45 (25.4)
Sedatives	12 (6.7)
Laxatives/anti-diarrhoeals	54 (30.5)
Anti-emetics	27 (15.2)

Anti-allergic	32 (18)
Multivitamins	35 (19.7)
Others	12 (6.7)

Paracetamol (59.3%), anti-tussives (54.2%), antibiotic (49.1%), analgesics (46.3%) were the most common drug/drug groups used for self medication.

The most common reasons for self medication is shown in table 4.

Table 4: Reasons for self medication

Reason	Respondents (%)
Don't want to spend money on doctor's fees	90 (50.8)
Time saving	77 (43.5)
Sufficient pharmacological knowledge	68 (38.4)
Previous use	54 (30.5)
Quick relief	48 (27.1)
Free physicians sample	15 (8.4)
Can't afford doctor's fees	27 (15.2)
Minor illness	66 (37.2)

The most common reasons for self medication were students didn't want to spend money on doctor's fees (50.8%), time saving (43.5%), sufficient pharmacological knowledge (38.4%) and the illness was considered as mild to consult a physician(37.2%)

The sources of drug information is shown in table 5.

Table 5:Source of information about drugs

Source	Respondents %
Doctors (from prior illness)	69 (38.9)
Textbooks	55 (31)
Pharmacist	96 (54.2)
Friends	47 (26.5)
Advertisements/television	42 (23.7)
Internet	50 (28.2)

The most common sources of drug information were from the pharmacist (54.2%), from prior prescription (38.9%) and textbooks (31%).

DISCUSSION

Medical students are expected to have better knowledge about the drug usage than general public, In the present study, 90% of the medical students had taken self medication in last six months. Self-medication has both advantages and disadvantages, depending on who and what one chooses to self-medicate. Various studies have been conducted all over the world and the practice of self-medication among medical as well as non-medical students is quite high. In studies conducted within India, the prevalence of self-medication among the medical students was shown to be ranging between 57.1% and 92%.[9-11]

The prevalence of self-medication was higher in females in present study. Similar observations were made in studies from India [9,10] and abroad. [12] The most common symptoms for which students had taken self medication was cold/cough (57.6%), fever (53.6%) and sore throat (47.4%). A recent study conducted in India[9] also reported the most common symptom was cold/cough, followed by fever and headache. The study[9] also found that most common drug/drug group used was antibiotics followed by analgesics. The present study found that paracetamol (59.3%), anti-tussives (54.2%), antibiotic (49.1%) and analgesics (46.3%) were the most common drug/drug groups used for self medication. Antibiotic usage was higher (49.1%) than that reported in other studies from India. [8,9]

The most common reasons for self medication in the present study was, students didn't want to spend money on doctor’s fees(50.8%), time saving(43.5%), sufficient pharmacological knowledge(38.4%) and the illness was considered as mild to consult a physician(37.2%). This finding differs from others recent studies [9-11] where the most common reason for self medication was illness considered as non serious. In the present study, the most common sources of drug information were from the pharmacist (54.2%), from prior prescription (38.9%) and textbooks (31%). Previous prescription was reported as the most common source in a recent study.[11] In other studies from India[15], and Ethiopia[18] textbooks were reported as the most common source of information. These differences might be due the different socioeconomic profiles, demographic characteristics of the participants and different methods used to find the prevalence of self-medication.

WHO is promoting practice of self-medication for effective and quick relief of symptoms without medical consultations to reduce burden on health care services, which are often understaffed and inaccessible in rural and remote areas of the developing world.[3] However, the WHO stresses that self-medication can only be used in countries that are able to provide adequate healthcare and education, and thus empower citizens to self-medicate responsibly.[13] The irrational use of drugs is a cause of public and professional concern.[14]

There are a number of problems related to irrational self medication like wastage of resources, adverse drug reaction, accidental poisoning and prolonged morbidity. Antimicrobial resistance is another problem worldwide particularly in developing countries where antibiotics are often available without a prescription.[15] Appropriate measures should be taken to educate Medical students and made aware about the implications of self-medication.

Limitations of the study

The limitation is we did not use a comparable group, the sample size was small. Future studies should be multicentric and should be done with large sample size and include a comparable group.

CONCLUSION

The prevalence of self medication was high in the present study. Pattern of self medication were inappropriate with inadequate knowledge. Medical students are the future prescribers, hence appropriate educational interventions need to be implemented from the undergraduate level and make the students aware of advantages and disadvantages of self-medication.

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Conflict of interest: None

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