



RESEARCH ARTICLE

SELF MEDICATION PATTERN AMONG MEDICAL UNDERGRADUATES IN SOUTH INDIA

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ABSTRACT

Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment the prevalence rates are higher in the developing countries going as high as 92% in the adolescents. Medical students differ from general population as there are expected to have more knowledge of the diseases and drugs. The present study was done to know the patterns of self medication practices in medical students. This was a questionnaire based study conducted in March 2014 at a medical college in South India. The selected respondents were those who have completed pharmacology exam and are in phase III and who had taken self medication in the last one year. The questionnaire included questions on involvement in self medication practices, frequency of self medication, sources of antibiotics used, reasons for self-prescribing of antibiotics, names of antibiotics used amongst other information. The present study showed a high prevalence of self medication in medical undergraduates. 87% of the students had taken self medication in the last one year. The most common symptoms for which self medication was taken were fever (91.9%), headache/body ache (83.6%), sore throat (77.9%) and cold/cough (68.5%). The most commonly used drug groups were analgesics (76.1%), anti-pyretics (57.8%), antibiotics (59.7%), antacids (41.5%) and anti-emetics (40.2%). The most common source of information was form prior illness, textbook and pharmacist. Most common reason was students did not want pay the doctors fess and lack of time. The practice of self medication is alarmingly higher among the medical students. Medical students tend to practice self-medication more often than the general public. Self-medication should be considered as a serious problem, especially among young population and educational intervention measures need to be implemented.

Key words: Self-medication, rational use, medical students, over the counter drugs

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]. The prevalence rates are high all over the world with 68% in European countries, while much higher rates are seen in the developing countries going as high as 92% in the adolescents [3,4].

Self-care of minor illnesses has been encouraged by some governments. Responsible self medication, which is limited to over the counter (OTC) drugs, may generate substantial net benefits to economies through saving in travel and consultation time and the direct financial cost of treatment [5]. However, if abused it could delay accurate diagnosis,

appropriate treatment and could cause toxicity, side effects, drug interaction and unnecessary expenditure [6]. It has also been pointed out by the WHO that responsible self-medication could be helpful in the prevention and treatment of ailments that do not require medical consultation and provide a cheaper alternative treatment for common illnesses [7].

Though several studies have been carried out in different populations to evaluate the practice of self-medication there is a paucity of studies on self medication among medical students in our region. Medical students differ from general population as there are expected to have more knowledge of the diseases and drugs. The present study was done to know the patterns of self medication practices in medical students.

MATERIAL AND METHODS:

This was a questionnaire based study conducted in March 2014 at a medical college in South India. Participants were

explained the purpose of study and were requested to complete and return the questionnaire immediately. The study was approved by the Institutional Ethics Committee. The selected respondents were those who have completed pharmacology exam and are in phase III and who had taken self medication in the last one year.

A self-developed, prevalidated questionnaire consisting of both open-ended and closed-ended items were used. The questionnaire was pre-tested in junior faculty and was suitably modified before administering to the respondents. The questionnaire included questions on involvement in self medication practices, frequency of self medication,

sources of antibiotics used, reasons for self-prescribing of antibiotics, names of antibiotics used amongst other information. The information was recorded and analyzed using Microsoft Excel (2007 version). The results are explained in frequency and percentage.

RESULTS:

A total of 159 students were included in the study. 87% of the students said they had self medicated in the last one year. The demographic characteristics of the respondents are shown in table 1.

Table 1: Demographic characteristics of the respondents

Characteristics	Frequency	Percentage
Age in years		
19-22	159	100
Gender		
Male	82	51.5
Female	77	48.4
Self-medication		
Yes	138	86.7
No	21	13.2

The common symptoms for which students took self medication is listed in table 2.

Table 2: Common symptoms for self-medication

Symptom	n (%)
Fever	145 (91.9)
Headache/body ache	133 (83.6)
Vomiting	96 (60.3)
Cold/cough	109 (68.5)
Sore throat	124 (77.9)
Diarrhea	77 (48.4)
Menstrual cramps	29 (18.2)
Anxiety	22 (13.8)
Others	9 (5.6)

The most commonly used drugs for self medication is listed in table 3.

Table 3: Commonly used medications

Medications	n (%)
Analgesics	121 (76.1)
Anti-pyretics	92 (57.8)
Antacids	66 (41.5)
Anti emetics	64 (40.2)
Antibiotics	95 (59.7)
Multivitamins	34 (21.3)
Sedatives	23 (14.4)
Laxatives/anti-diarrheals	45 (28.3)
Others	12 (7.5)

The common sources of information of drugs are listed in table 4.

Table 4: Source of information about drugs

Source	n (%)
Doctors (from prior illness)	109 (68.5)
Internet	55 (34.5)
Textbooks	82 (51.5)
Television/Advertisements	41 (25.7)
Friends	61 (38.3)
Pharmacists	68 (42.7)

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

Table 5: Reasons for self medication

Reason	n (%)
Don't want to spend money on doctor's fees	90 (56.6)
Time factor	72 (45.2)
Prior experience of use	78 (49)
Can't afford doctor's fees	32 (20.1)
Disease not serious	59 (37.1)

DISCUSSION:

The present study showed a high prevalence of self medication in medical undergraduates. 87% of the students had taken self medication in the last one year. Other studies [8-10] have also reported a high prevalence of self medication among medical students. The most common symptoms for which self medication was taken were fever (91.9%), headache/body ache (83.6%), sore throat (77.9%) and cold/cough (68.5%). Other symptoms are listed in table 2. The findings are similar to other studies [8,11-13].

The most commonly used drug groups were analgesics (76.1%), anti-pyretics (57.8%), antibiotics (59.7%), antacids (41.5%) and anti-emetics (40.2%). Other studies have found similar results [12, 14]. The most common source of information was from prior illness, textbook and pharmacist (table 4). The reasons for self medication are shown in table 5. Most common reason was students did not want pay the doctors fees and lack of time. These results are again contradictory to the recent study conducted in India[15]. Reasons may be different methods used to find the prevalence of self-medication, different socioeconomic profiles and demographic characteristics.

There is a certain amount of hesitation in consulting professional colleagues when they need medical help due to complex reasons including ego and a busy professional work pattern[16]. An exploratory survey on drug prescription and self-medication undertaken in India concluded that a rational drug policy, unless accompanied by intensive efforts to improve the education and updating the knowledge of doctors and pharmacists and to reduce the commercial pressures on doctors to prescribe unnecessary drugs[17].

WHO is promoting the 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[18]. Self-treatment is strongly embedded within the culture of both physicians and medical students as an accepted way to enhance work performance and these complex self-directed care behaviours could be regarded as an occupational hazard of the medical profession. However, the WHO stresses that self-medication can only be used in countries that are able to provide adequate health care and education, and thus empower citizens to self-medicate responsibly [19].

A major problem of self-medication with antibiotics is the emergence of drug resistance. Antimicrobial resistance is a current problem world-wide; particularly in developing countries. It is widely believed that malpractices such as inadequate dosing, incomplete treatment courses and indiscriminate drug use have contributed to the emergence

and spread of antimicrobial resistance [20], the recent example being the Metallo-beta-lactamase-1 [21].

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Limitations of the study:

The questionnaire was self reported one, there is a possibility over reporting of the self medication. The study was conducted at a single centre and the sample size was small. Future studies should be multicentre with large sample size.

CONCLUSION:

The practice of self medication is alarmingly higher among the medical students. Medical students tend to practice self-medication more often than the general public. Self-medication should be considered as a serious problem, especially among young population and educational intervention measures need to be implemented. Strict legislation regarding accessibility of these drugs may also be warranted.

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Conflict of interest: None

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