

Perception and practice of self-medication amongst second year medical students in a tertiary care teaching hospital**Amullya C. Pednekar*, Padma N. Bhandare, Shantadurga S. Kerkar**

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ABSTRACT

Background: Management of medical ailments requires sound knowledge of diseases and drugs. Medical students are more likely to practice self-medication due to easy access to information. Inappropriate and inadequate treatment can lead to morbidity and mortality. Thus, the current study was carried out to understand the perception and practice of self-medication in medical students so that habit of ethical practice can be inculcated in them.

Methods: A self-developed and prevalidated questionnaire was distributed amongst 145 students of second MBBS after approval from Institutional ethics Committee. Data was collected; analysed using MS Excel and the results were expressed as counts and percentages.

Results: In this study authors noted 136 (93.79%) out of the 145 students practised self-medication. The commonest reason being effectiveness of medications for similar conditions in the past 92 (69.17%). 111 (81.61%) students reported fever as the most common indication. Analgesics/anti-pyretics 117 (86.02%) were the most frequently used drug groups. Majority 87 (63.97%) obtained information from friends and relatives. Adverse effects of self-medication were noted in 20 (14.70%).

Conclusions: This study indicates higher prevalence of self-medication in medical students of Goa. Students can be sensitised and made aware about possible adverse effects and drug interactions with self-medication and how simple looking illness may take an ugly turn. Students being future doctors will continue this chain of spread of awareness of self-medication. Easy access to healthcare can also solve these problems.

Keywords: Awareness, Medical students, Perception, Practice, Questionnaire, Self-medication

INTRODUCTION

Self-medication is defined as self-administering drugs which include herbal and traditional products to treat self-diagnosed ailments without a physician's consultation or valid prescription for the same. Self-medication forms one of the elements of self-care.¹

WHO endorses practice of responsible self-medication in some conditions that are self-recognisable and for some chronic or recurrent condition (following initial medical

diagnosis) using medicines with proven safety, quality and efficacy. The drugs available and approved for this purpose without a physician's prescription are called as over the counter (OTC) drugs.²

OTC drugs are the only drugs, which can be sold without a need of a valid prescription.³ These products should be accompanied with information which explains how to use the medicine, effects and likely adverse effects, monitoring of the effects, dosage schedule, precautions,

possible drug or food interactions and when to seek advice of a health care professional.⁴

Responsible self-medication provides quick and inexpensive access to treatment, thereby reducing the burden on healthcare resources of a country like India which has limited number of health professionals. However because of improper regulation and easy availability of prescription as well as non-prescription drugs, immoral self-medication has become a rampant practice in India.⁵ Such inappropriate self-medication can result in wrong diagnosis which may lead to delayed treatment and failure of therapy, adverse drug reactions, dangerous drug interactions, incorrect manner and dose of administration, prolonged suffering, and risk of development of bacterial resistance and drug dependence.⁶

Effective treatment of any ailment requires sound knowledge of disease as well as the drugs. Even though MBBS students have wealth of information at their helm to diagnose themselves and self-medicate, they lack in expertise. As future health care providers and prescribers, understanding practice of self-medication in these students is of paramount importance so that habits of ethical practice are inculcated in their budding years. Although many studies have been previously done on this subject, yet none have been done in Goa. Keeping this in mind, the current study was carried out in Goa Medical College to assess the perception and practice of self-medication amongst second year medical students.

METHODS

The study was a prospective, cross-sectional, questionnaire-based study which was conducted in second MBBS students of Goa Medical College and Hospital, Bambolim, Goa, India. Prior approval from Institutional Ethics Committee was taken. The study was conducted over a period of one month from September 2018 to October 2018.

The study aims and procedures were explained to the second MBBS students and all those willing to participate and provide written informed consent were included in the

study. Those unwilling or those with incompletely filled questionnaire were excluded from the study.

Self-developed and prevalidated questionnaire assessing the practice of self-medication was provided to 145 enrolled participants and feedback was obtained. Questionnaire consisted of 2 sections: section A and B. Section A included questions regarding demographic details of the participants. Section B consisted of 14 questions assessing the perception and practice of self-medication amongst them.

All the data collected was analysed using Microsoft Excel 2016 and results expressed as counts and percentages. Descriptive analysis was performed by SPSS version 20.

RESULTS

Total 145 students participated in the study voluntarily, of which 57 (39.31%) were males and 88 (60.69%) were females. Mean age of participating students was 19.98 years.

Out of the 145 students 136 (93.79%) had used medication for self-diagnosed ailments at some point in the past. The most common reasons given for self-medicating were effectiveness of medicines for similar conditions in the past (92 (69.17%)) and that minor conditions do not require a doctor’s visit (63(47.36%)) (Figure 1).

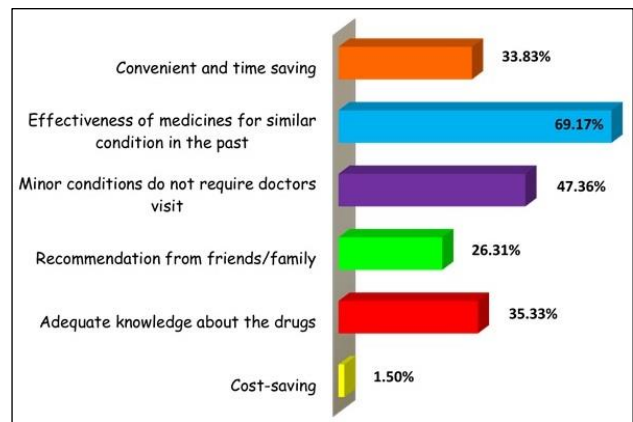


Figure 1: Reasons for opting to self-medicate.

Table 1: Common symptoms for which medications used.

Symptoms	Number (%)
Fever	111 (81.61%)
Respiratory symptoms (cough/ sore throat/ running nose /respiratory tract infection)	94(69.11%)
Aches and pains (headache / body ache/abdominal pain. dysmenorrhoea)	89 (65.44%)
Gastric symptoms (diarrhoea/ constipation / gastritis/ indigestion)	78 (57.35%)
Skin infections and allergies	23 (16.91%)
Ocular and ear symptoms	14 (10.29%)
Nutritional deficiencies	21 (15.44%)
Depression /Anxiety/ Insomnia	1 (0.73%)

Fever (111(81.61%)), respiratory symptoms like cold, cough, sore throat, runny nose (94(69.11%)), aches and pains like headache, bodyache, abdominal pain (89 (65.44%)) were the most common symptoms for which medications were taken (Table 1).

Analgesics and antipyretics (117(86.02%)) and cough syrups (96(70.58%)) were the most common self-medicated drugs. An interesting finding in our study was that significantly high number of students (39(28.67%)) had used antibiotics without a valid prescription from the doctor (Table 2).

Table 2: Common groups of drugs used for self-medication.

Type of drugs used	Number (%)
Analgesics / Antipyretics	117 (86.02%)
Cough syrups	96 (70.58%)
Anti-diarrhoeal/ Laxatives	51 (37.50%)
Antacids	43 (31.61%)
Antimicrobials	39 (28.67%)
Nasal decongestants	39 (28.67%)
Multivitamins	36 (26.47%)
Anti-allergics	29 (21.32%)
Eye and ear drops	19 (13.97%)
Sedatives	3 (2.20%)
Anti- spasmotic	2 (1.47%)
Steroids	1 (0.73%)

Majority of students (116(85.29%)) procured the drugs directly from the pharmacy with others acquiring them from their own homes (95(69.85%)), friends/relatives (23(16.91%)) and online stores (3(2.20%)) (Figure 2). The information about the drugs used by them were obtained from friends/relatives (63.97%), classroom and literature (45.59%), pharmacist (43.38%) and internet (25.73%).

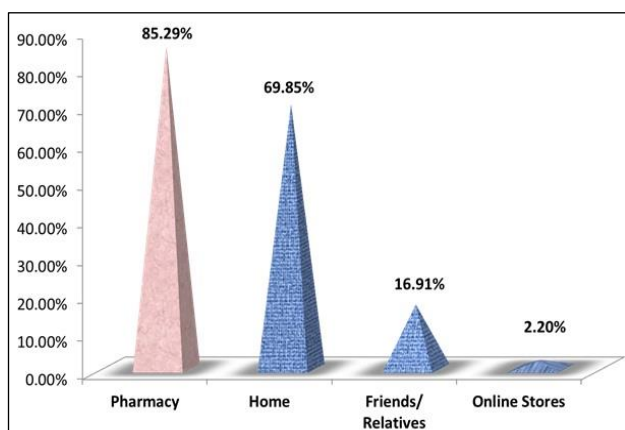


Figure 2: Sources of procuring drugs.

Only 42 students (30.88%) agreed to have always completed the course of the medication taken, whereas the rest of them occasionally or never completed the course of medication. 36 (26.47%) students admitted having

increased or decreased the dose of medication in view of worsening or improving condition respectively. 23 students (16.91%) encountered adverse effects with the drugs used of which almost half (12(52.17%)) of them stopped the medication and consulted the doctor whereas others continued the drugs in lower dose (7(30.44%)) or same dose (4(17.39%)) (Figure 3).

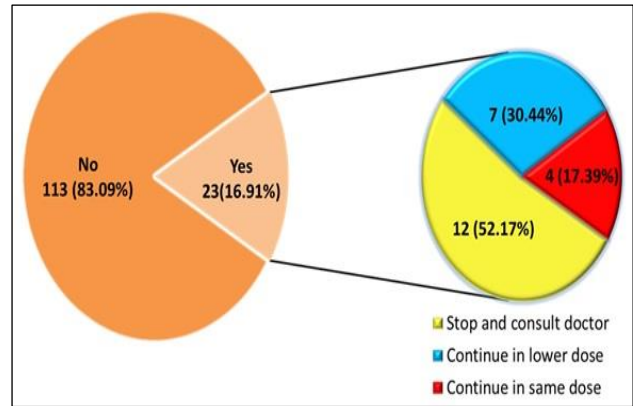


Figure 3: Adverse effects noted and next step taken.

Majority of the students (127(93.38%)) always checked the expiry date of the drug before consuming it whereas 90(66.17%) of them agreeing to have always read the package inserts/labels. 59.56% (81) of the students felt that self-medication is not entirely safe, however 90.29% (121) of the students felt it was an acceptable practice and a little more than half of them (69(53.08%)) even saying that they will suggest self-medication to family/friends. Majority of the students (128(94.12%)) agreed that knowledge acquired by them till now has made them more cautious while using medication.

DISCUSSION

The present study was conducted with an aim to explore perception and practice of self-medication among 2nd MBBS students as they are more prone to use medicines with easy access to information as well as drugs.

In present study authors found that prevalence of self-medication in the students was 93.79% which was higher when compared to studies conducted in India, Egypt, Saudi Arabia and Bangladesh.^{1,3,7-10,11} This higher prevalence maybe attributed to easy access to information as well as easy availability of drugs at medical stores and at one’s own home.

Effectiveness of the medicine for similar conditions in the past (69.17%) was the main reason for self-medicating in present study while Patil SB et al, and Kasulkar A et al, noted it for mild nature of illness.^{10,12} Fever (81.61%) was the main symptom while analgesic/antipyretic most commonly used drug group in our study which was in accordance with Kasulkar A et al.¹⁰ Adverse effects were noted by 16.91% of the students in our study which was higher when compared to Jagadeesh K et al, and Patil SB

et al.^{2,12} These findings are important as many a times a symptom may just be tip of an iceberg and treating them just based on effectiveness of drugs in the past is not recommended as it may lead to adverse events, drug resistance and incomplete treatment. Thus there is a growing need to make students aware of such harmful effects of self-medication.

In present study, pharmacy (85.29%) formed a major source of procuring drugs. Similar findings were noticed in studies from Bhopal and Nagpur.^{7,10} Over the counter (OTC) supply of medicines contribute considerably to self-medication. Periodic checks on pharmacies are needed as pharmacists are uniquely placed at the helm of drug distribution and dispensing. Advertisements of drugs through media and promotional literatures must be vigilantly monitored.

The information for the use of drugs to self-medicate in present study, was obtained by students from friends and relatives (63.97%) whereas studies in Karnataka and Punjab found pharmacists (65%) and old prescriptions (42.4%) respectively, to be the chief source of information about the drugs.^{8,13} 93.28% students in present study always made sure to check expiry date before using a drug which was similar to a study done in Nepal.¹⁴ Checking for expiry is a good practice to ensure highest efficacy and safety from the drugs that we consume.

Package inserts/labels were read by 66.17% of students which was similar to a study conducted in Bangladesh.³ Reading package labels and inserts ensures patient is aware of the latest instructions and dosage patterns of the medicine to be consumed.

Only 30.88% students always completed the course of medication taken which is of great concern. Such incomplete and inadequate treatment may lead to drug resistance and recurrence.

Limitation of this study was that we included only 145 students; but more such studies involving large number of medical students as well as students from the other streams and centres are needed. The study cannot rule out mutual influence in between students while filling the questionnaire. The study also did not differentiate between OTC drugs and prescription drugs which may have created some confusion amongst students.

CONCLUSION

Present study was first of its kind study on self-medication done in medical students in Goa. The prevalence of self-medication amongst 2nd MBBS students was found to be very high. The students need to be sensitized about the hazardous effects of self-medication and made aware that a simple looking illness may take an ugly turn. As these students are our future doctors they will carry the flame of awareness forwards.

At the pharmacy level, stringent steps need to be taken to curb the sale of prescription drugs as over the counter products. Also health care facilities need to be made easily accessible and cost effective. Public awareness via the media like television, newspaper, social media etc. can help to curb unethical practice of self-medication.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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