

RESEARCH ARTICLE

Self-medication practice of antihistaminics H1 blocker among undergraduate medical students in a tertiary care hospital

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ABSTRACT


Background: Self-medication is a widely prevalent practice in India. It assumes a special significance among medical students as they are the future medical practitioners and differ from general population as they are exposed to the knowledge about drug and diseases. Self-medication is very common among the medical students, and from previous studies, it was seen that antihistaminic was commonly taken as self-medication. **Aims and Objective:** The aim of the study is to assess the knowledge, attitude, and practice of self-medication among undergraduate medical students toward antihistaminics. **Materials and Methods:** A cross-sectional, questionnaire-based study was conducted among the 300 undergraduate medical students of 2nd and 3rd year from July to December 2018 after taking the approval from the Institutional Ethical Committee. **Results:** It was found that 200 (90%) respondents practiced self-medication. Most common conditions for taking antihistaminic self-medication were allergic rhinitis (39%), sinusitis (34%), motion sickness (7%), urticaria (14%), and insect bite (6%). Most common reasons for seeking self-medication were mild illness (50%), time-saving (33%), cost-effectiveness (11%), and urgency (6%). Commonly used H1 antihistaminics were cetirizine, levocetirizine, fexofenadine, loratadine, hydroxyzine, and promethazine; main source of their knowledge was from their medical textbooks (50%), internet (30%), and parents and friends (20%). Most of the students reported that antihistaminics were safe drug, the only side effects that they reported were sedation, drowsiness, and lack of concentration, and second-generation antihistaminics were costly. **Conclusion:** Undergraduate medical students commonly use antihistaminic as self-medication because they are having easy access to knowledge related to the antihistaminics and their adverse effect. We as a faculty should ensure that students practice self-medication only when he/she knows the advantages and disadvantages of self-medication.

KEY WORDS: Antihistaminics; Medical Students; Questionnaire; Self-medication

INTRODUCTION

Medication plays a vital role in health care, and it is an important therapeutic tool in the hands of health-care professionals. In

medical students, trend toward the use of self-medication is growing day by day. Self-medication can be defined as the use of drugs to treat self-diagnosed disorders or symptoms or the intermittent or continued use of one prescribed drug for chronic or recurrent disease or symptoms.^[1] People desire to take responsibility for their own health-care management. Many do so through self-medication. Self-medication involves acquiring medication without a prescription, resubmitting an old prescription to procure medication, sharing medications with others, or utilizing a medication that is already available in the residence.^[2] The increase in self-medication is due to a number of factors. These factors

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include ready access to drugs, socioeconomic factors, public health and environmental factors, demographic and epidemiological factors, lifestyle, the increased potential to manage certain illnesses through self-care, and greater availability of medicinal products.^[3] Self-medication is, especially, encountered among medical students which may be due to their future medical preferences^[4] and the fact that medical students find themselves having more knowledge about the drugs.^[5] Some of the other reasons for such common practice include non-licensed providers of medicines, availability of prescription medicines in open markets, actions of unregistered practitioners, and use of leftovers and medicines obtained from family members or friends with previous similar symptoms. The increased advertising of pharmaceuticals poses a larger threat of self-medication to the younger population in general. Self-medication is possible with any group/category of drug; here, in this study, we have focused our attention toward self-medication with only antihistaminics among medical graduates as previous studies show that antihistaminics are being widely used as self-medication. We decided to evaluate the knowledge, attitude, and practice of self-medication of antihistaminics. We wanted to assess why self-medication is so popular among the young medical students, whether they have authentic knowledge of antihistaminics such as dose, frequency, type, and receptor.

MATERIALS AND METHODS

The study was conducted in a tertiary care teaching hospital. It was a descriptive, cross-sectional, questionnaire-based study conducted among medical undergraduates of 2nd year students. Informed consent was taken from the students before the study. The Institutional Ethical Committee Permission was taken before the study. The questionnaire containing 11 items was distributed among students and time of 20 min was given for each student to fill that. The students who were unwilling to fill the questionnaire were excluded from the study. The data collected were analyzed, and the results are expressed in counts and percentages.

RESULTS

A total of 300 questionnaires were distributed among medical undergraduates of 2nd and 3rd year MBBS, aged between 20 and 25 years. Of 300 undergraduate medical students, 250 consented for the study and filled in the supplied questionnaire. 30 incomplete questionnaires were excluded and the remaining 220 were analyzed. It was found that 200 (90%) respondents practiced self-medication. The common conditions for seeking antihistaminics included allergic rhinitis as reported by 78 students (39%), sinusitis by 68 students (34%), motion sickness by 14 students (7%), urticaria by 28 students (14%), and antihistaminics in insect bite by 12 students (6%) as shown in Figure 1. Reasons for seeking self-medication are

as follows: 100 students (50%) felt that their illness was mild, while 66 (33%) preferred as it is time-saving, and about 22 students (11%) cited cost-effectiveness as the primary reason while 12 students (6%) preferred due to urgency as shown in Figure 2. 84% of students reported that they were using H₁ blocker antihistaminic (second generation) and 16% reported that they were using H₁ blocker (first generation for urticaria and motion sickness) which showed that they had the knowledge about first and second generation of antihistaminics. Most commonly used H₁ antihistaminics were cetirizine, levocetirizine, fexofenadine, loratadine hydroxyzine, and promethazine (commonly used in urticarial and motion sickness). 80% of students had the knowledge about the dose and frequency of the drugs and only 20% of students did not have the knowledge of the same. They were taking the drug as when required. 50% of students had the knowledge about antihistaminics from the textbooks of pharmacology they read, 20% had the knowledge from the parents and friends, and 30% from the internet. All of them had compliance with the solid dosage form and preferred oral route. The main source for drug procurement was pharmacy without prescription (60%), followed by free physician

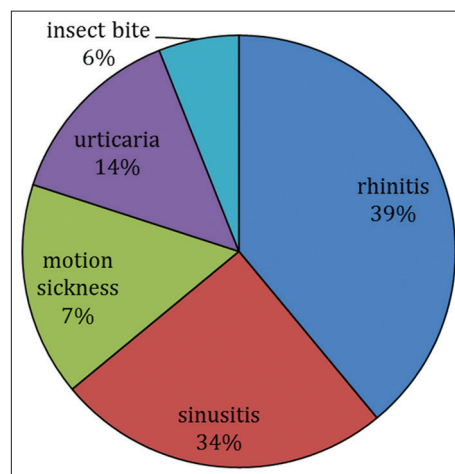


Figure 1: Conditions in which antihistaminics were used as self-medication

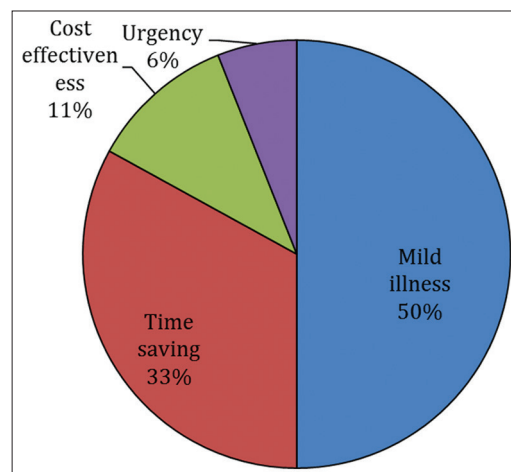


Figure 2: Reasons for self-medication

samples (20%) and friends/relatives (20%). Adverse effects that students reported after taking H1 antihistaminics were sedation, drowsiness, and lack of concentration. Student found that second-generation H1 antihistaminics were costly than first-generation H1 antihistaminics.

DISCUSSION

In our study, we found that self-medication of antihistaminic was common among undergraduate medical students. 90% of the respondents used antihistaminics without prescription. The common conditions for seeking antihistaminics included allergic rhinitis as reported by 78 students (39%), sinusitis by 68 students (34%), motion sickness by 14 students (7%), urticaria by 28 students (14%), and antihistaminics in insect bite by 12 students (6%). Reasons for seeking self-medication are as follows: 100 students (50%) felt that their illness was mild, while 66 (33%) preferred as it is time-saving, and about 22 students (11%) cited cost-effectiveness as the primary reason while 12 students (6%) preferred because of urgency.

William Osler said “The desire to take medicine is perhaps the greatest feature which distinguishes man from animals.” This desire plays a key role for the practice of self-medication which can be defined as utilization of drugs without the advice of a physician either for diagnosis, prescription, or surveillance of treatment.^[4] Self-medication is becoming an increasingly important area within health care.^[6] In our study, prevalence of self-medication among the medical students was found to be 90% which was almost similar to the self-medication in Badiger *et al.*^[7] It is also noted that a high level of education and professional status are predictive factors for self-medication.^[8] Our aim was to assess antihistaminic self-medication as it is widely being used as self-medication as reported by the previous study done on self-medication by Badiger *et al.*^[7] The study group mentioned the most common source of information for self-medication as reading material and this is comparable with previously conducted studies.^[9] With respect to the source of drug procurement, we observed that the pharmacy and free physician samples were the most common source which is similar to the results of previous studies.^[10] Students reported that they were aware of adverse effects of medicines used by them which are analogous with the findings of other workers.^[11] Majority of students agreed that medical knowledge is necessary for the administration of medicine by self which is in accordance with other studies.^[11]

Students suggested measures such as creating awareness and education programs which were similar to a study done by Pati *et al.*^[12]

Our study provides useful information to plan a suitable educational intervention for rationale antihistaminic use and to minimize adverse effect. Limitation of the study is that

there was less study for the comparison. As self-medication is seen as a human right, but if used irrationally, it can cause unintentional self-harm.

CONCLUSION

Self-medication is highly prevalent in medical students. This might be because of awareness of drugs due to easy accessibility of information through medical textbook and internet. Since self-medication is at an alarming rate, education of the students to ensure safe practices is the need of the hour. Although self-medication is difficult to eradicate, various measures can be taken like educating them about the advantages and disadvantages of self-medication, various aspects basic of pharmacology, adverse effects of drugs, and prescription drugs and its importance. This will sensitize the students regarding the irrational use of medicines in terms of self-medication and will also guide in the designing various health education strategies which are required to educate the students and the community in large.

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