A SURVEY STUDY ON USE OF OVER-THE-COUNTER (OTC) DRUGS AMONG MEDICAL STUDENTS OF A TERTIARY CARE CENTRE, B. G. NAGAR

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ABSTRACT

BACKGROUND

Over-the-counter drugs (OTC) or non-prescriptive drugs are the drugs that are purchased without a prescription. Medical professionals have a common tendency to practice self-medication when they feel sick themselves. Self-medication practice in medical professionals gets incorporated right from their undergraduate days. As medical students are the future medical practitioners, it assumes a specific significance among them.

AIMS & OBJECTIVES

To analyze the use of over-the-counter drugs among medical students, to determine the type of OTC drugs commonly used and to determine the various factors responsible for the usage of OTC drugs.

METHODOLOGY

A cross-sectional questionnaire-based study was conducted among 2nd year medical students of AIMS, B. G. Nagar.

RESULTS

Among 160 students, 118 were female students (73.75%) and 42 were male students (26.25%) and were within the age group of 19 to 21 years. 84.37 % (n=135) of the participants were aware of OTC drugs and 76.87 % (n=123) of participants knew the name of some drugs which fall under this category. 43.75% of the participants use OTC drugs very rarely and 40.62% of participants once a month. Fever (78.12%) and headache (78.75%) were the most common ailments for using OTC drugs following for cold/cough (76.25%), pain (63.12%) and acidity (51.87%). Commonly used drugs were analgesics (68.75%), antipyretics (65.62%), cough suppressants (51.87%), antacids (44.37%), vitamins (32.5%), anti-allergens (18.75%) and anti-emetic drugs (6.87%). 70.62% of participants think why to seek doctor's advice as it is a minor ailment. 45.62% of participants were confident in self-medication, 43.12% of participants think that they can save time by self-medication.

CONCLUSION

In our study, OTC medication is widely used among medical students. It is important to create awareness about harmful effects of OTC drugs among medical students as they are future health care providers and prevent untoward consequences.

KEYWORDS

Over-the-counter drugs, Self-medication, Medical students.

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INTRODUCTION: 'Over-the-counter (OTC) drugs means drugs legally allowed to be sold over-the-counter, i.e. without the prescription of a Registered Medical Practitioner.[1]

In recent years, there has been an increasing trend in self-medication with over-the-counter (OTC) medicines available in pharmacies and in retail outlets. In parallel, more products have been deregulated for purchase without a prescription.[2]

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Deregulation process has been championed by the government health policy makers, the pharmacy profession and pharmaceutical industry and is supported by the view that patients wish to have a greater role in their treatment choices.[3]

There are currently more than 3,00,000 different OTC drugs available only in US.[4] In India, though the phrase 'over-the-counter drugs' has no legal recognition, so all the drugs not included in the list of 'prescription drugs' are considered as OTC drugs. All the non-prescription drugs which are sold over-the-counter to the general population also fall under these act and legislation. Trend of using OTC drugs/self-medication is high in India.[5] Due to uncontrolled use of OTC drugs, signs and symptoms of underlying diseases are suppressed hence incidence of delayed

diagnosis, complications, treatment failure and drug resistance are increasing.[6-9]

The practice of self-medication must be based on authentic medical information, otherwise irrational use of drugs can cause wastage of resources, increased resistance of pathogens and can lead to serious health hazards such as adverse drug reaction and prolonged morbidity. Self-medication assumes a special significance among the medical students as they are the future medical practitioners and have a potential role in counselling the patients about the advantages and disadvantages of self-medication. Medical students also differ from general population because they are well-exposed to the knowledge about diseases and drugs.

Self-medication is very common in medical students.[10,11] A high level of education and professional status has been mentioned as predictive factor for the use of OTC drugs, medical students are important member in this self-medicated group.[12]

Therefore, the present study was taken up to analyse the use of OTC drugs among medical students in a tertiary care teaching hospital.

OBJECTIVES:

- To analyse the use of over-the-counter drugs among medical students.
- To determine type of OTC drugs commonly used.
- To determine the various factors responsible for the usage of OTC drugs.

METHODOLOGY:

Study Design: Cross-sectional study.

Study Area: Adichunchanagiri Institute of Medical Sciences, B. G. Nagar.

Study Population: All second year medical students, both 3rd term and 4th term students.

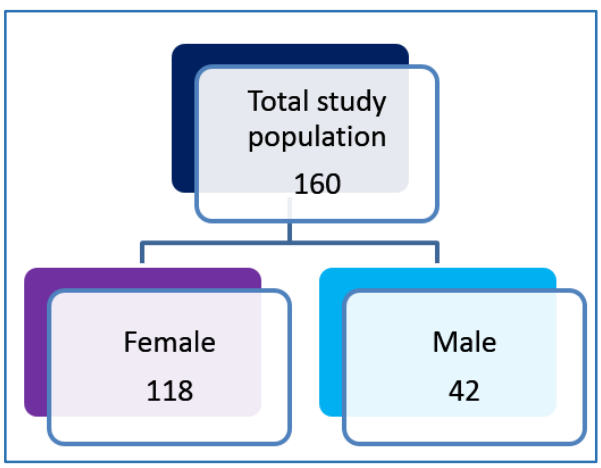
Sample Size: 160.

Data Collection Procedures: A cross-sectional questionnaire based study was conducted in AIMS, B. G. Nagar, with an aim to evaluate use of OTC drugs, to determine awareness and disadvantages on use of OTC drugs among medical students studying in 2nd year. The study was conducted after obtaining the permission from the Institutional Ethical Committee.

Objectives and procedure of the study was explained to the participants and those who were willing to fill the informed consent form were included in the study. A feedback questionnaire covering various aspects of OTC drugs was distributed among the participants. The information pertaining to the pattern of OTC drugs use, reason and indication for OTC drugs use, list of drugs commonly used for self-medication were included in the questionnaire. The investigators were present in case the respondents required assistance. For the purpose of the study, certain medical terms were explained to the participants if they cannot understand. The filled questionnaire feedbacks were retrieved from the participants.

Quality Control: Was maintained as per the standard protocol.

RESULTS: In our study, total respondents were 160. Among them, 118 are female (73.75%) respondents and 42 are male (26.25%) respondents (Flow chart 1). All were in the age group of 19–21 years.



Flow chart 1

Majority (84.37%, n=135) of the participants were aware of OTC drugs and 76.87% (n=123) of participants knew the name of some drugs which fall under this category.

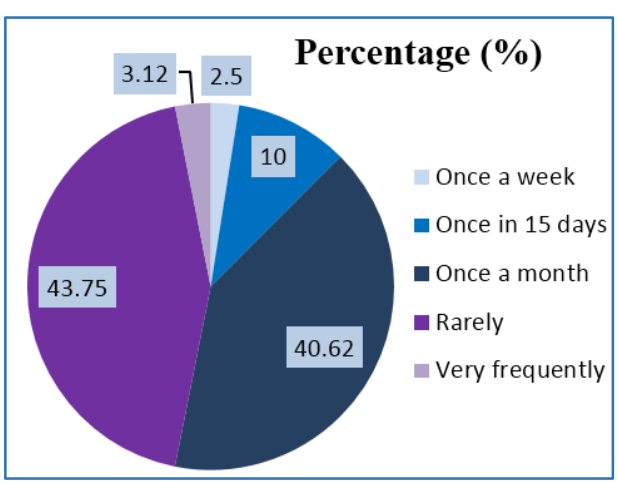


Fig. 1: Frequency of buying OTC drugs

43.75% of the participants use OTC drugs very rarely and 40.62% of participants once a month (Fig. 1).

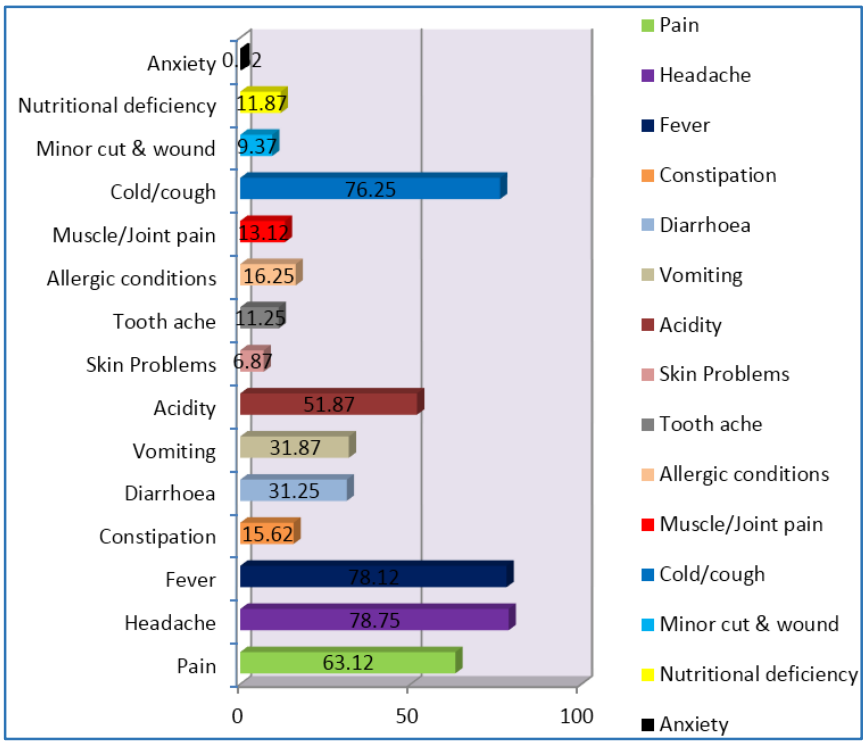


Fig. 2: Common ailments for which OTC drugs were used

Fever (78.12%) and headache (78.75%) are the most common ailments (Fig. 2) for using OTC drugs following for cold/cough (76.25%), pain (63.12%) and acidity (51.87%).

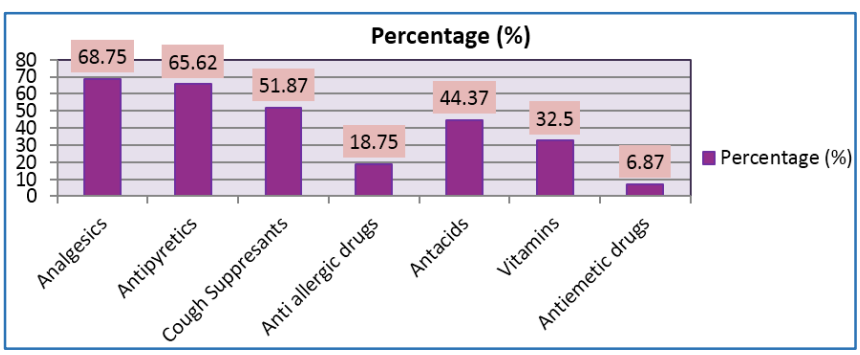


Fig. 3: Commonly used OTC drugs

Fig. 3 shows the classes of commonly used drugs which were analgesics (68.75%), antipyretics (65.62%), cough suppressants (51.87%), antacids (44.37%), vitamins (32.5%), anti-allergens (18.75%) and anti-emetic drugs (6.87%).

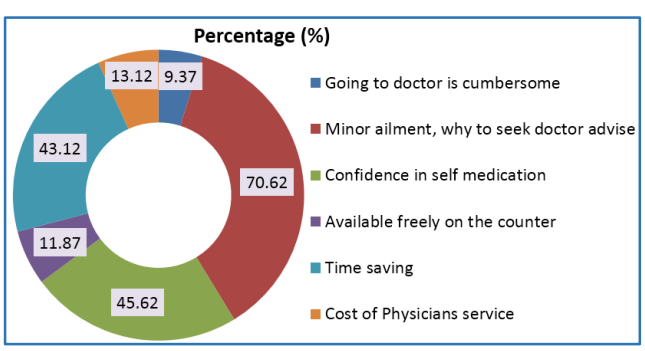


Fig. 4: Reasons for using OTC drugs

In the above fig. 4, it is seen that reasons for using OTC drugs are various, majority (70.62%) of participants felt that for a minor ailment why to seek doctor's advice, 45.62% of participants are confident in self-medication, 43.12% participants think they can save time, 13.12% of participants feel it is due to cost of physician's service, 11.87% of participants think it is due to easy availability over-the-counter and 9.37% feel cumbersome to go to a doctor for consultation.

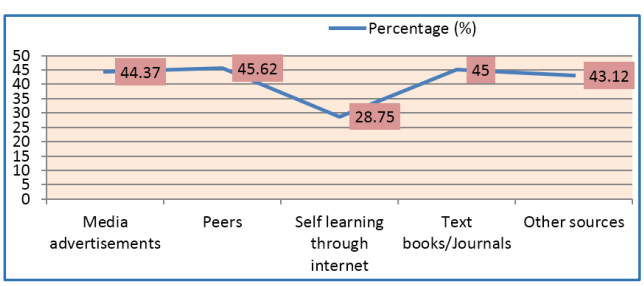


Fig. 5: Source of information about OTC drugs

DISCUSSION: WHO considers self-medication as part of the self-care that helps efficient use of the burdened health care system with guidelines for the regulatory assessment of medicinal products for use in self-medication. Within the health care use of OTC drug and self-medication is becoming an increasingly important area.[13]

There are no regulations on selling and purchasing of medications, individuals feel familiar to self-medicate the conditions based on their prior experiences, negligence and poverty to some extent, so use of OTC drugs in the developing countries like ours has been into practice.[14,15]

This cross-sectional study has found that use of OTC drugs is very common among medical students. These students have easy access to information from internet search, medical books, literature, drug indices and from other senior medical students, so they use drugs irrationally more commonly than general population and also being medical students, they can have more easily the medications than other general people from pharmacy. Minor ailment, why to seek doctor's advice, confidence in self-medication and time consumption for consultation were the commonly mentioned reasons for self-medication. Among the users many were aware of the OTCs they used while some were totally unaware of the medications used by them. Easy availability of drugs across the counter without a valid prescription, lack of stringent controls over medical advertising, low medical literacy among the population are the motivating factors for self-medication.

Medical students are unaware of the adverse effects of the medication that they themselves take and suggest to others. Being medical students, use of OTC drugs emerge as a huge problem; they not only use OTC drugs but also suggest these drugs to their family members, friends and others. Problems related to inappropriate use of OTC drugs should be emphasised to the students to minimise the risk. Hence it is suggested that medical education to these medical students is mandatory on the type of illnesses for self-diagnosis and its medication, in addition to implementing stringent rules and regulations on their use. It is also essential to highlight the dangers of OTCs on their misuse.

LIMITATIONS: The limitations of this study included the small sample size, not an interventional study like providing information regarding hazards of self-medication, absence of a comparative group like students from another field.

CONCLUSION: Majority of the medical students use OTC drugs in our study. Analgesics and antipyretics were the most common group of drugs used as OTC drugs. Easy availability, confidence in self-medication and information from internet, text books and seniors were the most common reasons for their self-medication. Majority of students are unaware of the adverse effects of the medications that they take themselves and suggest others. Proper medical education about the self-diagnosis and its medication along with implementation of stringent rules and regulations on their use should be made mandatory. To minimise the risk, potential problems of inappropriate use of OTC drugs should be emphasised. Restriction of sale of drugs with potentially harmful effects should be implemented effectively.

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