



RESEARCH ARTICLE

MEDICOS TOO NEED MEDICINE: A QUESTIONNAIRE BASED STUDY OF OTC USAGE IN MBBS STUDENTS

¹Dr. Rashmi Sharma, ^{*2}Dr. Arnab Sinha, ¹Dr. Santosh Kumar and ²Dr. Nirupama Verma

¹Department of Physiology, Narayan Medical College, Sasaram, Bihar

²Department of Orthopaedics, Indira Gandhi Institute of Medical Sciences, Patna, Bihar

ARTICLE INFO

Article History:

Received 25th March, 2016
Received in revised form
17th April, 2016
Accepted 08th May, 2016
Published online 15th June, 2016

Key words:

Over The Counter (OTC) drugs,
Self medication,
Medical undergraduates,
Prescription sharing,
Medicine advertisements,
Internet information.

ABSTRACT

OTC drugs are an inseparable attribute of democracy in which it is a human being who decides about their own future, including health OTC drugs provide people with an ability to treat the symptoms without thinking about the essence of the disease. Yet, every kind of freedom should be accompanied by knowledge and responsibility. The prevalence of self-medication practices is very high in the educated youth of India. It is the need of time to undertake certain measures to overcome the problem of self medication which may involve awareness and education regarding the implications of self-medication and strategies to prevent the supply of medicines without prescription by pharmacies. In this study the respondents were undergraduate medical students. The problem of drugs abuse among medical students is rarely the subject of a scholarly interest, so we may conclude that is rather underestimated. A feedback questionnaire covering various aspects of OTC drugs were distributed among the undergraduate medical students. The questionnaire was divided into two parts, part A assessed the prevalence and practice of self-medication and part B dealt with the attitude of students towards self medication. Information regarding the use, the factors affecting the use, ways of procurement, the type of medication, the source of information, motivating factors, illness for which the medication was used, reason for not consulting a doctor and the knowledge about and experience of adverse reactions amongst other information was collected. A total of 100 questionnaire feedbacks found to be completely filled were analysed.

Copyright©2016, Dr. Rashmi Sharma et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr. Rashmi Sharma, Dr. Arnab Sinha, Dr. Santosh Kumar and Dr. Nirupama Verma. 2016. "Medicos too need medicine: a questionnaire based study of otc usage in mbbs students", International Journal of Current Research, 8, (06), 32761-32764.

INTRODUCTION

Self-care may be defined as the care taken by individuals towards their own health and wellbeing, including the care extended to their family members and others. Self-medication is the treatment of common health problems with medicines especially designed and labelled for use without medical supervision and approved as safe and effective for such use. Medicines for self-medication are often called 'non-prescription' or 'over the counter' (OTC) and are available without a doctor's prescription through pharmacies. Self-medication or non-prescription drug use is a major problem worldwide which means obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment. 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. In most illness episodes, self-medication is the first option which makes it a common practice worldwide. In the treatment of minor illness, when problems are self-limited, self-care can be used. For government institutions, this can reduce costs while allowing health professionals to focus on more serious health problems. 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. Further in the absence of strategic consideration for the use of OTC drugs, chaos prevails and the reasons for these alarming situations are manifold. Perhaps, the poor economic status and busy lifestyle of an individual makes him rely on the OTC drugs. In India it has been shown that literate people were 76% more likely to self medicate than illiterate people. The World Health Organization (WHO) has appropriately pointed out that responsible self-medication can help prevent and treat diseases that do not require medical consultation and provides a cheaper alternative for treating common illnesses. The practice of self-medication must be based on authentic medical information

*Corresponding author: Dr. Arnab Sinha,
Department of Orthopaedics, Indira Gandhi Institute of Medical
Sciences, Patna, Bihar

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. 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. In several studies it has been shown that resistance of pathogens, adverse drug reactions and drug dependence increase to a very high level due to this inappropriate use of drugs without expert opinion. These are major causes of concern worldwide particularly in developing countries where antibiotics are often available without a prescription.

It is one of the rapidly growing areas of concern to medical professionals, government and the general public. Self-medication may initially result in reduction of distress but in the long-run however, it can cause many serious problems. Symptoms may rebound, resulting in stronger desires to take more drugs. Poisoning, allergy, habituation, addiction, dependence and resistance could occur. In extreme of cases negative consequences such as depression, suicide attempt, interpersonal problems, legal problems, medical problems, and in-patient psychiatric hospitalization could also occur. Moreover, currently, there is a worldwide concern about the emergence of antibiotic resistant strains of micro-organisms which might have been highly augmented by self-medication. 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 the general population because they are well-exposed to the knowledge about diseases and drugs. AIM - To determine the perception and level of awareness regarding OTC medications, among the medical students and to assess the pattern of self-medication practice among the undergraduate medical students.

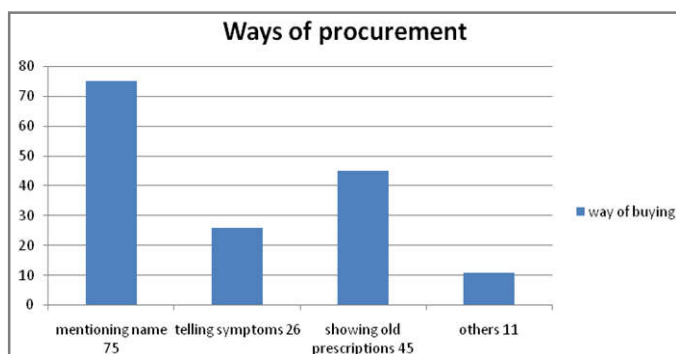
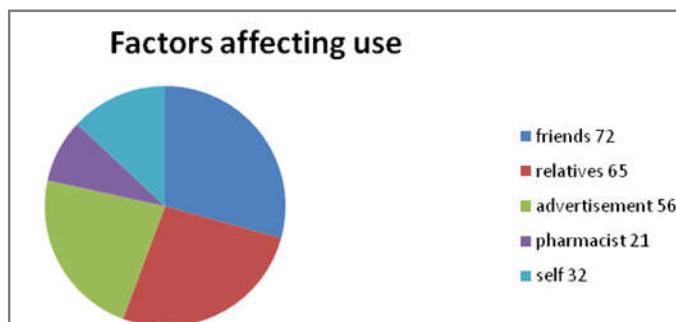
MATERIAL AND METHODS

Objectives and procedure of the study were explained to the participants and those who were willing to fill the informed consent form were included for the study. A feedback questionnaire covering various aspects of OTC drugs were distributed among the participants. The questionnaire was divided into two parts, part A assessed the prevalence and practice of self-medication and part B dealt with the attitude of students towards self medication. Information regarding the use, the factors affecting the use, ways of procurement, the type of medication, the source of information, motivating factors, illness for which the medication was used, reason for not consulting a doctor and the knowledge about and experience of adverse reactions amongst other information was collected. No data was requested from the questionnaire that could lead to the identification of the participants. The investigators were present in case the respondents required assistance. For the purpose of the study, certain medical terms were explained to the students if they could not understand. Some questions had multiple options respondents could select therefore, the sum of the percentages need not always be 100%. Incompletely filled feedback forms were rejected. A

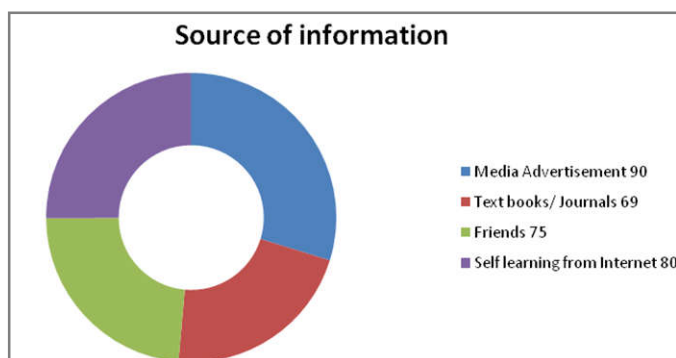
total of 100 questionnaire feedbacks found to be completely filled were analysed.

RESULTS

92 percent respondents used OTC drugs with all of them sharing OTC prescriptions with their friends or relatives. Friends were found to be the biggest factor affecting the use of OTC drugs with most of them being bought by mentioning the name of the drug across the counter.

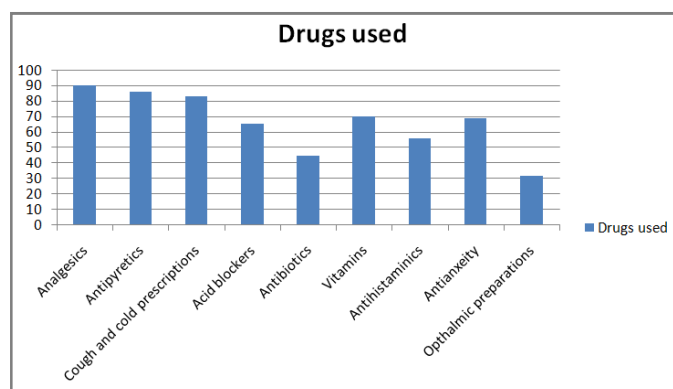
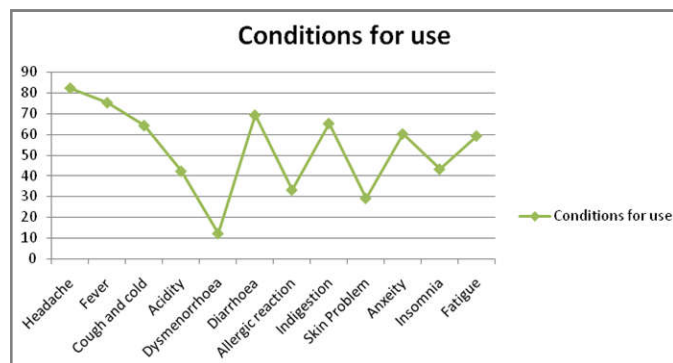
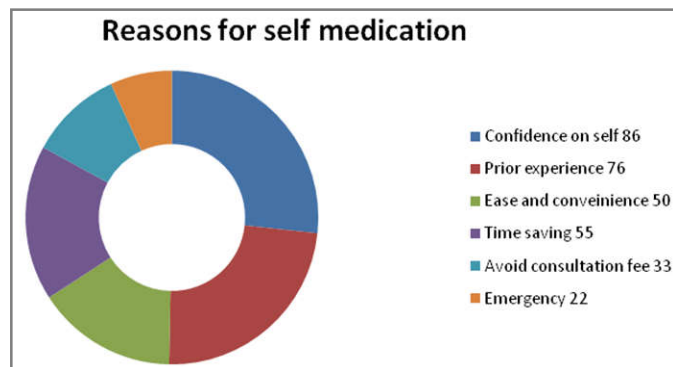


The most common source of information used to know about OTC drugs was Media advertisement. 26% responders agreed that they get influenced by the advertisements for taking medicines, whereas 52% said that they do not get influenced by these kind of advertisements. Out of the 26% students who get influenced by these advertisements, 75% said that they confirm it with a health care personnel, whereas 25% students told that they do not confirm it.

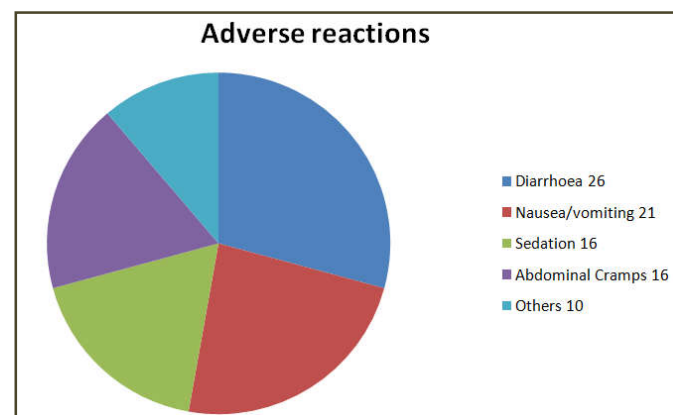


There were many reasons for using OTC drugs, the most common being confidence in self medication. The motivation for their use was mostly convenience followed by positive feedback from peers and relatives. The commonest condition for the use was headache and most commonly used OTC drugs were analgesics followed by antipyretics. All of the

respondents were aware of the package insert information of the drugs but only 21 % followed them.



35% experienced some sort of adverse reaction mainly diarrhoea followed by nausea and vomiting. Noteworthy is the point that among those not practicing self-medication the most common reason of not doing so was adverse reactions of drugs and that usages of OTC drugs were recommended by 52% participants while the remaining didn't.



CONCLUSION AND DISCUSSION

OTC drugs are an inseparable attribute of democracy in which it is a human being who decides about their own future, including health OTC drugs provide people with an ability to treat the symptoms without thinking about the essence of the disease. Yet, every kind of freedom should be accompanied by knowledge and responsibility. As suggested by Indermitte *et al*, efforts should be made to raise awareness regarding these drug interactions. Pharmacists as well as health care professionals would be able to play a major role to overcome this identified issue. The prevalence of self-medication practices is very high in the educated youth of India. It is the need of time to undertake certain measures to overcome the problem of self medication which may involve awareness and education regarding the implications of self-medication and strategies to prevent the supply of medicines without prescription by pharmacies. In this study the respondents were undergraduate medical students. The problem of drugs abuse among medical students is rarely the subject of a scholarly interest, so we may conclude that is rather underestimated. In a study conducted during among undergraduate medical students the prevalence of total drug abuse was almost half of the respondent student population and that the drug abuse rate had increased with advancement of each academic year (from about one fourth in the first year to three fourth in the final year). In our study, most respondents used OTC drugs with all of them sharing OTC prescriptions with their friends or relatives.

Friends were found to be the biggest factor affecting the use of OTC drugs with most of them being bought by mentioning the name of the drug across the counter. These drugs may not be as easily available to the general population as they are to medical students, who can obtain them by virtue of their Profession. Despite studying in detail about all these drug reactions, a good number of respondents recommended drugs to others with similar problem and they do know self-medication and reluctant use of OTC drugs are harmful, but majority use them. The most common source of information used to know about OTC drugs was Media advertisement. Many pharmacies have been strategically located in convenient places such as shopping malls and supermarkets, with a wide display of advertisements. This has resulted in easier access to OTC drugs from the pharmacies. A definition of a treatment using OTC drugs defines a period in which drugs are/can be used exclusively on the patient's own responsibility, but, no longer than 3-5 days. Such a time frame is not necessarily that obvious when reading the drug leaflets or advertisements. Typically, advertisers use phrasings like 'if you have any doubts, ask your doctor or pharmacist'. Such phrases are quite enigmatic and fail to define a specific specific period for a safe use of the drug.

On the other hand, 'ask your pharmacist' does not necessarily suggest that the diagnosis authorized by qualified staff (doctors) is really needed. Products are sold using the most sophisticated forms of advertisement. The plot of a random OTC drug commercial usually goes as follows – the actors become happy within 30 seconds, their children become healthy, any cough, headaches, abdominal pains and

diarrhoeas disappear – there is a kind of an appeal to the subconscious: OTC drugs make people smile and happier in a quick and effective way. Short message repeatedly aired during prime time, lures numerous customers. Moreover, the internet is emerging as a major source of information on health issues and offers great promise in helping people with self-care which also seem to affect the intake of OTC drugs. Along with this, the busy schedule of the students incline them more towards the option of self medication. There are many reasons for the increased likelihood of self-medication among medical students. These students have easy access to information from medical books, drug indices, literature, internet search and from other senior medical students, so they irrationally use drugs more commonly than general population. In addition, as they are medical students, they can have medications more easily than other general people from pharmacy. There were many reasons for using OTC drugs, the most common being confidence in self medication. The motivation for their use was mostly convenience followed by positive feedback from peers and relatives. The motivating factors for self medication could be easy availability of prescription drugs across the counter without a valid prescription, lack of stringent controls over medical advertising, and the compulsion to reduce health-care costs. The commonest condition for the use was headache and most commonly used OTC drugs were analgesics followed by antipyretics. About one third experienced some sort of adverse reaction mainly diarrhoea followed by nausea and vomiting. Noteworthy is the point that among those not practicing self-medication the most common reason of not doing so was adverse reactions of drugs and that usages of OTC drugs were recommended by more than half. Hence it is suggested that the public education is mandatory on the type of illnesses for self-diagnosis and its medication, along with implementation of stringent rules and regulations on their use. It is also essential to highlight the dangers of OTCs on their misuse. It should be emphasized that subject ‘drugs abuse among medical students’ is not trendy and the number of published studies are very small, many of them are not up to date. It seems be worthy to underline that the problem of improper attitudes of medical students towards the use of drugs should become a subject of detailed analysis, because this type of attitude is a threat both for those students and their future patients.

Limitations of the study

The limitations of this study included the absence of a comparative group, such as students from another field, the small sample size and the absence of interventions, like providing information regarding hazards of self-medication.

As it was the survey study conducted among medical students, it may not represent the behaviour of the general public. We could have missed much information because of participant’s fear to reveal the truth of having used OTC without consulting a specialist inspite of the effort taken not to collect any data to identify the respondents. The study was based on self-reported data about self-medication thus prone to recall bias. Moreover, although the students were encouraged to complete the questionnaire independently, mutual influence between the students could not be entirely ruled out. The results of the study could have been more generalized.

Acknowledgement

The researchers would like to express their utmost appreciation to the participants, the fellow medicos, for their valuable time that they had spent to take part in the study

REFERENCES

- Figueiras, A. *et al.* 2000. Sociodemographic factors related to self-medication in Spain. *Eur J Epidemiol.*,
 Food and Drug Administration (FDA) Glossary of Terms.
 James, H. *et al.* 2006. Evaluation of the knowledge, attitude and practice of self-medication among first year medical students. *Med Princ Pract.*, 2006
 Martins, A.P. *et al.* 2002. Self medication in a Portuguese urban population: a prevalence study. *Pharmacoepidemiol Drug Saf.*
 McCabe, S.C. *et al.* 2005. Illicit use of prescription pain medication among college students. *Drug and Alcohol Dependence.*
 Shankar, *et al* 2002. Self-medication and non- doctor prescription practices in Pokhara valley, Western Nepal: a questionnaire based study. *BMC Family Practice.*
 Sontakke, S. 2011. *Det al* Comparative study of evaluation of self-medication practices in first and third year medical students. *International Journal of Biological & Medical Research*, 2011
 WHO guidelines for the regulatory assessment of medicinal products for use in self-medication, 2000.
 World health organization guidelines for the regulatory assessment of medicinal products for use in self-medication. 00.1. 2000
 World Self-Medication Industry: Responsible self-care and self-medication. A worldwide review of consumer surveys. (www.wsmi.org)
