

**SELF MEDICATION AMONG UNDERGRADUATE MEDICAL &  
PARAMEDICAL STUDENTS OF HIMS, SWAMI RAMA HIMALAYAN  
UNIVERSITY, DEHRADUN**

**Richa Garg<sup>1\*</sup>, Taruna Sharma<sup>2</sup> and D C Dhasmana<sup>3</sup>**

<sup>1</sup>Resident, Department of Pharmacology, Himalayan Institute of Medical Sciences, SRHU,  
Dehradun.

<sup>2</sup>Professor & Head, Department of Pharmacology, Himalayan Institute of Medical Sciences,  
SRHU, Dehradun.

<sup>3</sup>Professor, Department of Pharmacology, Himalayan Institute of Medical Sciences, SRHU,  
Dehradun.

Article Received on  
30 April 2015,

Revised on 20 May 2015,  
Accepted on 09 June 2015

**\*Correspondence for**

**Author**

**Richa Garg**

Resident, Department of  
Pharmacology, Himalayan  
Institute of Medical  
Sciences, SRHU,  
Dehradun.

**ABSTRACT**

**AIM:** To assess the pattern of self medication practices among undergraduate medical & paramedical students. **MATERIAL & METHODS:** A cross-sectional questionnaire based study was conducted in the Tertiary care hospital and College, Dehradun, Uttarakhand. The time period was one month and all medical and paramedical students who were enrolled in the department of Pharmacology were enrolled in the study. After explaining the purpose of the study, voluntary consent was taken from the subjects before the start of the study. Self designed Questionnaire forms were duly filled by the respondents. **BACKGROUND:** Self medication is a widely prevalent practice in India, with Medical students being the ones

mostly seen involved in such activity as they are future medical practitioners. In a number of developing countries many drugs are dispensed over the counter without medical supervision. The objective of this study was to assess the self medication practice in common type of illnesses, and identify frequently used drugs and determinants of self medication. **RESULT:** Out of the total 180 students, 176 respondents (98%) were aged between 19 to 21 years. The majority of the respondents stayed within 1km of a health care facility. 147 (82%) of these respondents had taken some form of self medication. The common reasons given for self medication were mild illness 134 (74%). The medical shop owner was also common

source of medicines 73(41%). Among the ones who took antimicrobials 71(39%) did not complete the course. 31(17%) experienced side effects of the drugs taken. The respondents also suggested medication to others like friend 101(56%), relative 17(9%) and known 29(16%). **CONCLUSION:** Self-medication was practiced with a range of drugs from the conventional analgesics to antibiotics. Although the practice of self-medication is inevitable; drug authorities and health professionals need to educate students the pros and cons of self-medication.

**KEY WORDS:** Self-medication, medical students.

### What this study adds

- 1) The pattern of self-medication among medical and paramedical undergraduates.
- 2) Factors influencing self-medication.
- 3) Potential adverse effects of self-medication.

### BACKGROUND

Self-medication refers to using drugs that have not been prescribed, recommended or controlled by a licensed healthcare specialist.<sup>[1]</sup> It is widely prevalent practice in India. The non medical personnels are seen to be commonly involved in such activities as they are reluctant to visit doctor due to anxiety, fear of diagnosis, cost and also distance of medical care facility from residence.<sup>[2]</sup> In a number of developing countries many drugs are dispensed over the counter without medical supervision, and this is also a major contributing factor.<sup>[3]</sup>

In a study done on medical undergraduates by Sangeev Badiger et al they observed that 33% of the respondents were unaware of the adverse effects of the medication and 5% had experienced adverse reactions.<sup>[4]</sup> In several studies it has been found that inappropriate self medication causes wastage of resources, increases resistance of pathogens, drug interactions and generally causes serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence.<sup>[5]</sup> Rationally use of antimicrobials should follow specific criteria; currently, they are on top of the list of self-medication medicines in countries that do not control their commercialization.<sup>[6]</sup> It appears that interventions merely aimed at educating consumers may not be very effective and more vigorous interventions including strict regulation of OTC sale of drugs need to be employed.<sup>[7]</sup>

The objective of this study is to assess the self medication practice among medical

undergraduates and non medical groups and identify frequently used drugs and determinants of self medication. Although the self-medication practice is inevitable; drug authorities and health professionals need to educate students about the pros and cons of self medication.

## METHOD

This cross-sectional study was undertaken in Himalayan Institute Of Medical Sciences, Dehradun, India. With approval of the college ethics Committee. The study population consisted of Medical and Paramedical undergraduates enrolled in the department of pharmacology. The time period was one month and after explaining the purpose of the study, voluntary consent was taken from the subjects before the start of the study. Self designed Questionnaire forms were then duly filled by the respondents. All variables were denoted in multiple response questions. The information pertaining to the pattern of self medication, indications for self medication and drugs used for self medication were included in the questionnaire. The investigators were present in case the respondents required assistance.

Descriptive statistics will be applied in the form of percentage, bar diagrams, Pie chart etc.

## RESULTS

Out of the total 180 students, 176 respondents (98%) were aged between 19 to 21 years. The majority of the respondents stayed within 1km of a health care facility. 147 (82%) of these respondents had taken some form of self medication.

The common reasons given for self medication were mild illness 134 (74%), confident enough to treat 73(40%), lack of time was also a major factor among 48 (27%) of the respondents. 3 (2%) of them complained of the doctor being too far from residence. **Figure 1.** The most common ailments for which the drugs were used were reported to be (in chronological order) headache 123(68 %), cough 89( 49%), fever 81( 45 %), common cold 68( 38%), pain abdomen 30 ( 17%), diarrhea 25( 14%). **Figure 2.** The most commonly used drugs used were anti-pyretics 113(77%), analgesic 97(66%), antibiotics 92(63%), antacids 62(42%) etc. **Figure 3.**

The medical shop owner was also common source of medicines 73(41%). Among the ones who took antimicrobials 71(39%) did not complete the course. 31(17%) experienced side effects of the drugs taken. The respondents also suggested medication to others like friend

101(56%), relative 17(9%) and known 29(16%). The most common source of information about drugs were parents 89(61%), internet 48(33%), classmates 36(24%) and seniors 28(19%). **Figure 4.**

## DISCUSSION

Self-medication is becoming an increasingly important area within healthcare, and this study shows that it is so prevalent among medical students. This study has found a prevalence of self-medication of 82% in medical students.

Our study denotes that most common reasons for self-medication were mild illness 74%. Lack of time was also a major factor among 27% of the respondents. 2% of them complained of the doctor being too far from residence. The next common reason for self-medication in our study among medical students was their confidence to treat (40%), which is unique to this study group. Misplaced confidence can lead to inappropriate self-medication and can expose the participants to all the risks associated with inappropriate use of self-medications.<sup>[8]</sup>

Most of the study participants who practiced self medication were aware about the warning symptoms of the disease. Increased awareness about how long to continue self medication, what symptoms indicate worsening of the disease, and when one should see a doctor, as a result of intervention, is a significant achievement as it is very important to be able to recognize the early symptoms of any impending complication of a disease while one is practicing self medication. The amount of antimicrobials consumed in a community is directly related to the amount of antimicrobial resistance found. In our study 39% of the respondents did not complete the antimicrobial course, which adds to the resistance as well as an unrequired financial burden.

Self-medication is very common among medical students, facilitated by the easy availability of drugs, and information from textbooks/seniors, as in our study even internet was a common source of information in about 33% of the cases. A significant number of students are unaware of the adverse effects of the medication that they themselves take and suggest to others. Since inappropriate self-medication has the potential to cause serious harm, not only to the students themselves but also to those whom they suggest medication, potential problems of self-medication should be emphasized to the students to minimize this risk. As in our study the pharmacist was also a common source of drugs in 41% of the cases. Restriction of sale of drugs with potentially harmful effects should be implemented

effectively with monitoring systems between the physicians and pharmacists.

Efforts to educate the general public should be intensified and appropriate use of over the counter medicines should be ensured.

### ACKNOWLEDGEMENTS

The authors would like to thank the respondents for participating in this study.

### CONFLICTS OF INTEREST

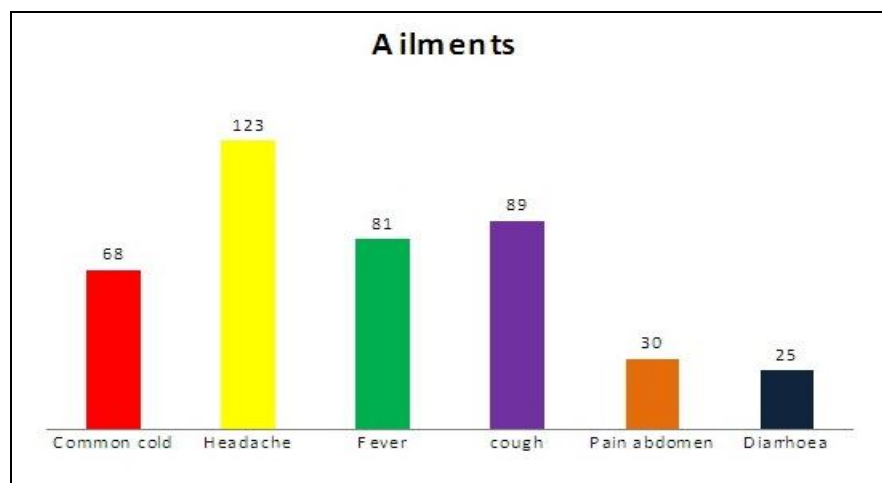
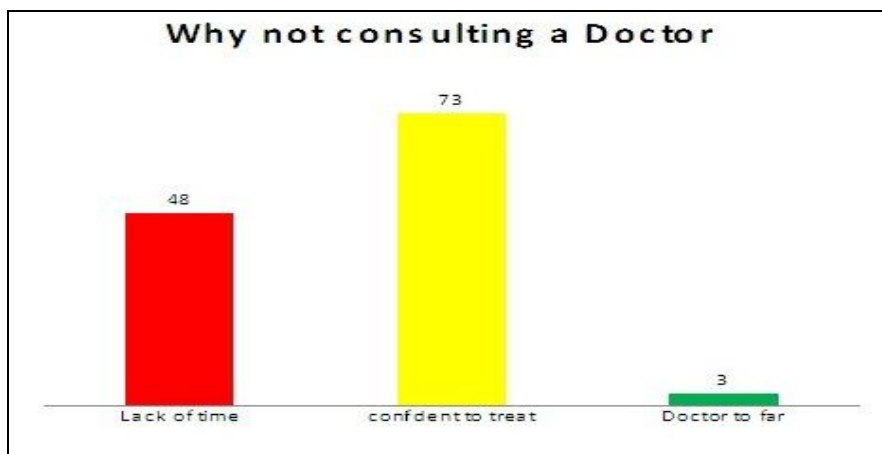
The authors declare that they have no competing interests.

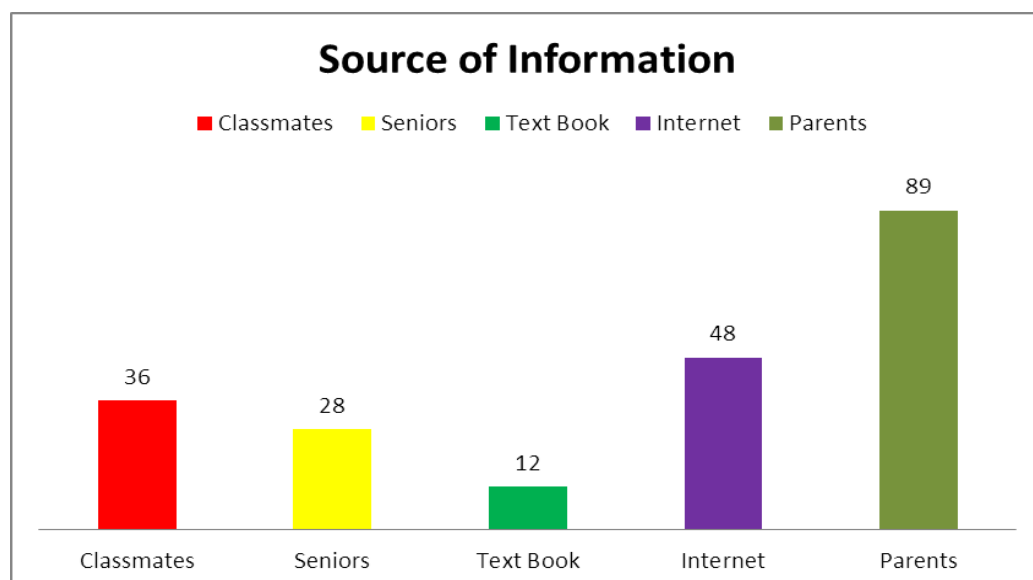
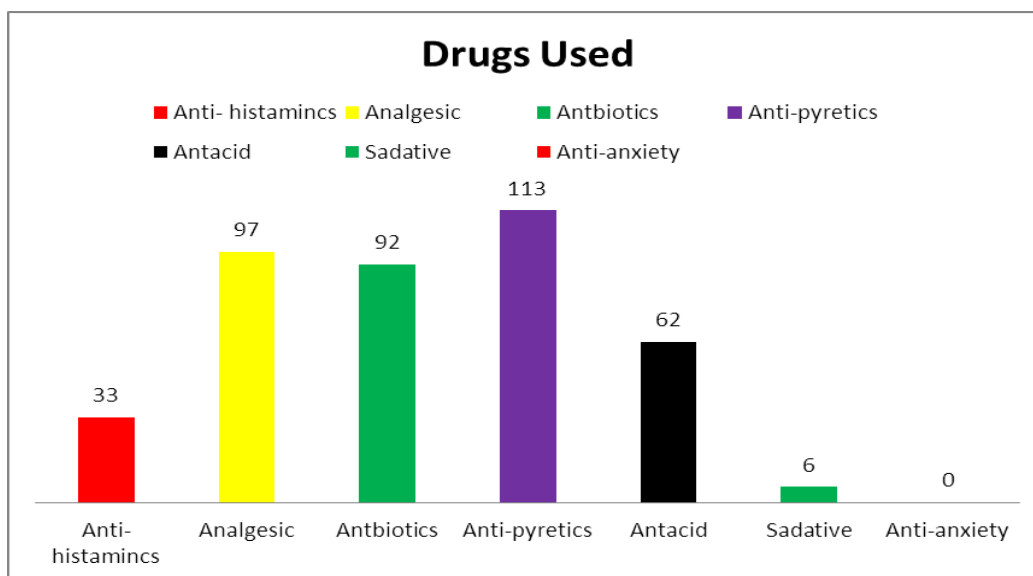
### FUNDING

Not applicable.

### ETHICS COMMITTEE APPROVAL

Institutional Ethics Committee, HIMS, SRHU, Dehradun.





## CONCLUSION

Self-medication is a prevalent practice in the India with 98% of respondents using some form of self-medication. Non-doctor prescribing of allopathic drugs was also common (70% of respondents). The common sources of medicine were the pharmacy shop and friends. Fever and headache were the most common reasons for non doctor prescription.

Drugs especially antimicrobials were not taken for the proper length of time. Education to help patients decide on the appropriateness of self-medication is required. Further studies on the factors influencing self and non-doctor prescribing are required.

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.

## REFERENCES

1. Albarrán KF, Zapata LV. Analysis and quantification of self-medication patterns of customers in community pharmacies in southern Chile. *Pharm World Sci*, 2008; 30: 863-8.
2. Schlafer J, Slamet LS, de Visscher G: Appropriateness of self-medication: method development and testing in urban Indonesia. *J clin Pharm Ther*, 1997; 22(4): 261-272.
3. World Health Organization. The Role of pharmacist in Health Care System; 1998. Available from: <http://www.apps.who.int/medicinedocs/en/d/Jwhozip32e>.
4. Badiger S, Kundapur R et al. Self-medication patterns among medical students in South India. *Australasian Medical Journal*, 2012; 5(4): 217-220.
5. Hughes CM, McElnay JC, Fleming GF. Benefits and risks of self medication. *Drug Saf.* , 2001; 24: 1027–1037.
6. Volpato DE, de Souza BV, Dalla Rosa LG, Melo LH, Daudt CA, Deboni L. Use of antibiotics without medical prescription. *Braz J Infect Dis.*, 2005; 9: 288–91.
7. S Bang, Smita Sontakke . Pre and post-interventional pattern of self medication in three common illnesses in staff of a tertiary hospital. *Indian J Pharmacol.*, 2011; 43(3): 275-277.
8. James H, Handu SS, Khalid AJ, Khaja A, Ootom S, Sequeira RP. Evaluation of the knowledge, attitude and practice of self-medication among first-year medical students. *Med Princ Pract*, 2006; 15: 270–275.