

Study on Self-Medication Practices among Undergraduate Medical Students in Katihar, Bihar

Kumar Himanshu¹, Purnendu Kumar Singh², Akhil Bandhu Biswas³

ABSTRACT

Introduction: Self-Medication is quite a prevalent public health problem and widely practiced in every part of the world, especially in developing countries like India. Self-Medication can be defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptom. Medical students are in a unique position for wide practice of self-medication. The current study aimed to estimate the prevalence and practices of self-medication among the undergraduate medical students of Katihar Medical College, Katihar, Bihar, India

Material and Methods: A cross-sectional questionnaire based study was conducted among first to final year undergraduate medical students in the month of February and March 2019, after taking informed consent from participants. The study was kept anonymous to get genuine response from students. Total 396 students were taken. Out of which 18 incomplete questionnaires were excluded and 378 questionnaires were analyzed.

Results: Self-medication practice was highly prevalent among the undergraduate medical students, with 71.70% reporting that they indulge in it. Self-medication was more prevalent among female students than male. Fever and headache (66%) were the most frequently reported illnesses for which Self-medication was practiced by the students. Analgesics and Antipyretics (64%) were the most common drugs used by students for Self-medication. The most common reason adduced for Self-medication practice (68%) was their belief that they have sufficient information and knowledge, and they know what to take for which ailment. Internet and Mobile apps (67%) were the major source of information for Self-medication reported by students.

Conclusion: Self-Medication is prevalent among the undergraduate medical students of Katihar Medical College, Katihar, Bihar, India. The findings highlight the need for intervention programmes regarding the practice of self-medication and educate them regarding advantage and disadvantages of Self-medication.

Keywords: Self-medication, Prevalence, Undergraduate, Medical Students, OTC, Katihar

INTRODUCTION

Self-medication can be defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms.¹ Self-medication involves 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.² Economic, political, and cultural factors have stimulated a constant increase in self-medication worldwide, turning this practice into a major public health problem.² Self-medication is widely practiced worldwide in urban and rural population especially in developing countries like India, Pakistan, Nepal because of inadequate health services and many drugs are dispensed Over-the-Counter (OTC) without a doctor's prescription in pharmacies prescription and it provides a low cost alternative for people.³⁻⁵ Self-medication is now increasingly being considered as a part of self-care.⁶ The practice of Self-medication is widespread in many countries.^{3-5,7-12} Self-medication is especially encountered among medical students, which may be because of their future medical preferences.⁸ and the fact that medical students find themselves having more knowledge about the drugs.⁹ Medical students though not having legal permit to prescribe medicines, but have an inevitable urge of self-medication practice for themselves and also for others as they are going through the professional course with gradual acquirement of knowledge regarding different drugs and their proper use.^{10,12,14-16,19} Self-medication is common among the practicing physicians in India.¹⁰ Our study was undertaken to assess the practice and perception of Self-medication among undergraduate medical students in Katihar Medical College, Katihar, Bihar, India

MATERIAL AND METHODS

A cross-sectional questionnaire based study was conducted among First to final year undergraduate medical students of Katihar Medical College, Katihar, Bihar, India in the month of February and March 2019. Total 396 students were taken. Out of which 18 incomplete filled questionnaires were excluded and left 378 questionnaires were analyzed. The students who took self-medication during in last twelve months were included. Any event of use of over the counter

¹Post Graduate Resident, Department of Community Medicine, Katihar Medical College, Katihar, ²Associate Professor, Department of Community Medicine, Katihar Medical College, Katihar, ³Professor and Head, Department of Community Medicine, Katihar Medical College, Katihar, India

Corresponding author: Kumar Himanshu, Post Graduate Resident, Department of Community Medicine, Katihar Medical College, Katihar PIN-854105, Bihar, India

How to cite this article: Kumar Himanshu, Purnendu Kumar Singh, Akhil Bandhu Biswas. Study on self-medication practices among undergraduate medical students in Katihar, Bihar. International Journal of Contemporary Medical Research 2019;6(8):H12-H15.

DOI: <http://dx.doi.org/10.21276/ijcmr.2019.6.8.43>

(OTC) or prescription medicines without consulting a doctor was considered as self-medication. All the students were explained about the type and purpose of the study and informed that participation is voluntary and their collected information will not be shared and it would be anonymous. Written informed consent was obtained from each volunteer prior to the study. Students were given a questionnaire that was prepared in English language under the guidance of expert faculty members and was first pre-tested in ten respondents prior to this study. The questionnaire was having two parts, the first part consists of question regarding age, gender, year of study and the second part was having questions related to Self-medication practices.

Ethics Committee approval was obtained from the Institutional Ethical Committee of Katihar Medical College, Katihar, Bihar, India vide letter no-IEC/DEPT.RES/COMM.MED/001/2018, prior to the commencement of the study.

RESULTS

The present study was carried out among 378 MBBS students, of which 191 (50.52%) were males and 187 (49.48%) were females. The mean age of students was 19.49 ± 1.61 years ranging from 17 to 24 years. Among these 378 students, 93 (24.60%), 82 (21.70%), 96 (25.40%), and 107 (28.30%) were studying in Ist Year MBBS, IInd Year MBBS, IIIrd Year MBBS, and IVth Year MBBS, respectively [Table 1]. Total Number of Male students were 191 and Female

Year of MBBS	Male	Female	Total
1 st year	51	42	93
2 nd year	38	44	82
3 rd year	47	49	96
4 th year	55	52	107
Total	191	187	378

Table-1:

Year of MBBS	Self medication	No-self medication	Total no of students in each year
1 st year	51	42	93
2 nd year	63	19	82
3 rd year	69	27	96
4 th year	88	19	107
Total	271	107	378

Table-2:

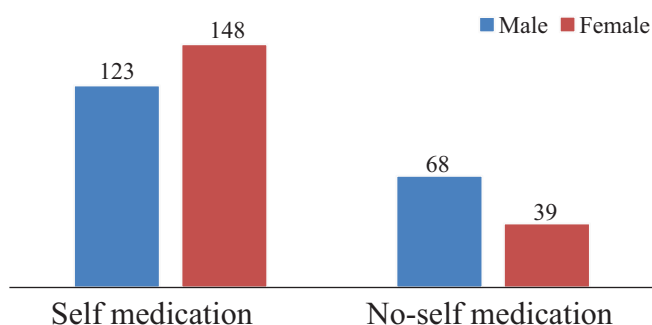


Figure-1: Distribution according to gender

Students were 187. We observed that 271 (71.70%) students practiced Self-medication in the preceding one year. Among the study population, female students-148 (54.60%) were

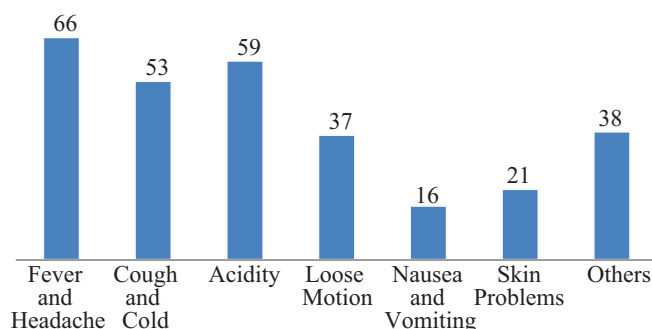


Figure-2: Distribution according to symptoms for self medication

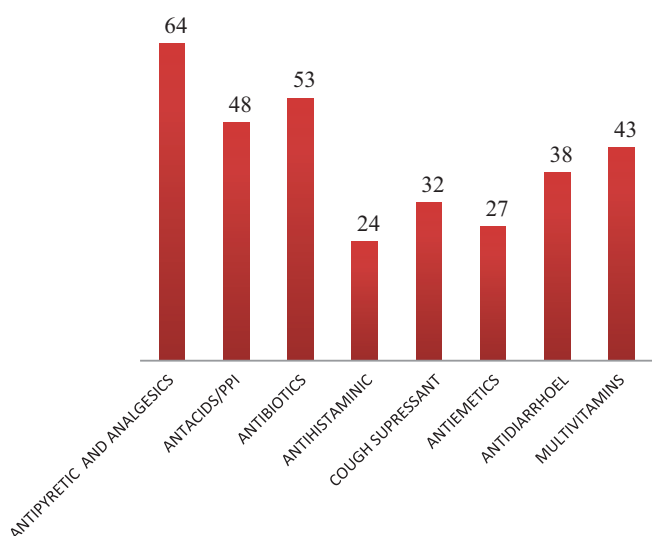


Figure-3: Group of drugs used for self-medication

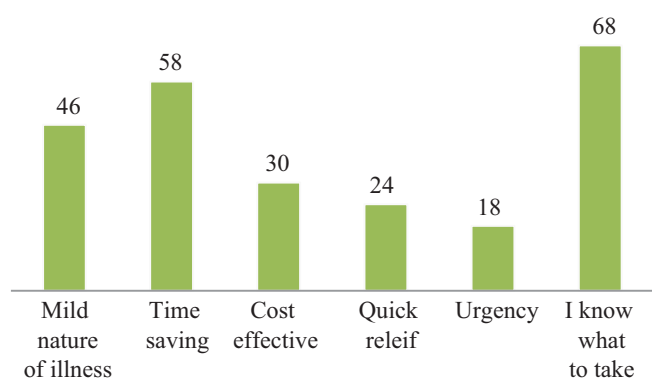


Figure-4: Reason for self medication

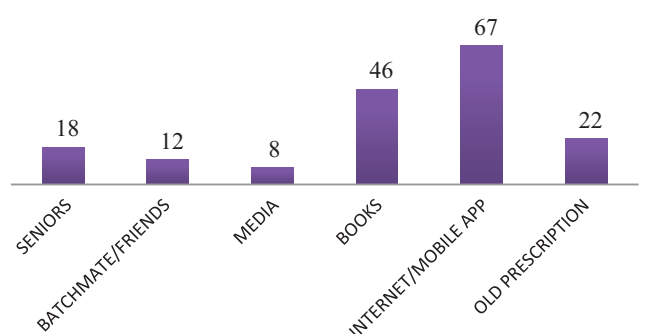


Figure-5: Group of drugs used for self-medication

engaged in self-medication which was greater as compared to male students-123(45.40%) [FIG-1] and 83% of study population were aware about Self-medication and We noted that 368 (97.6%) students agreed that medical knowledge is necessary for administration of medicine by self.

The prevalence of Self-medication varied amongst different years of students, the prevalence was found highest among final year student as depicted in [Table 2]. Among the self-medicators, the majority followed allopathic system of medicine (81%) followed by ayurvedic (10%) and homeopathic (6%) system of medicine and 3% of study population were using different system of medicines together. Fever and headache[66%] were the most frequently reported illnesses followed by acidity (59%) and Cough(53%) for which Self-medication was practiced.[FIG-2] The most commonly used group of drugs were antipyretics and analgesics[64%] followed by antibiotics(53%) and antacids(48%) for Self-medication.[FIG-3] out of these 82.2% drugs were of non-prescription type and Over-the-Counter (OTC) drugs.

As per the frequency of using drugs is concerned, majority reported it was on as when needed (52%) Monthly (24%), regularly (18%) and weekly (16%)

Regarding reason behind the Self-medication by students is Concerned,68% prefer Self-medication because they Know what to take for what ailments followed by reasons as Time saver (58%) and Mild Nature of illness(46%)-[FIG-4]

Among Students engaged in Self-medication Practices, Internet and Mobile Application (67%) was the major source of information regarding which drugs to be taken for what illness, followed by Books (46%) and Old prescription (22%)- [FIG-5]

DISCUSSION

The study was conducted to gain an insight into the prevalence and practice of self medication among undergraduate medical students in Katihar Medical College,Katihar,Bihar,India

Our Study revealed that the prevalence of Self-medication practiced was 71.70% which was similar to study conducted among undergraduate medical students in India.¹³⁻¹⁴ and neighboring country Pakistan.⁷ Whereas prevalence of 84% and 87% was found in study conducted in Nepal⁵ and Saudi Arabia¹⁸ respectively among undergraduate medical students. We found that Female students(54.60%) were engaged in self-medication practices as compared to male students(45.60%),which shows female students were more interested in taking Self-medication as compared to male students; this may be due to the fact that the female students are more hesitant to go to the hospital or OPD for minor illness. Similar findings were there in the studies.^{8,13-14}

The prevalence of self-medication practice was highest in final year students (82%) which are in accordance to assumption and the reason could be their knowledge about diseases and drugs is further enhanced by reading final year subjects, visiting clinical wards and feel more confident than other year students in practicing Self-medication. Similar findings were found in other studies where prevalence

of self-medication is found to be increasing as the year of study increases.^{4,5,7,8,10,14,18} In our study most of the students followed allopathic system of medicine which was similar to observations made in a study conducted in Southern India.¹³ This can be due to easy and wide availability of allopathic system of drugs in India as compared to other systems of medicine.

In our study we found that analgesics and antipyretics(64%) were most frequently used group of drug for self-medication, which was similar to study conducted in Southern India¹² and Western India¹⁴ and similar results was found in study in Ethiopia.¹⁷ In our study, antibiotics(53%) were second most common used drug for Self-medication which was similar to the result found in study conducted in West Bengal, India among medical students.⁸ In our study fever and headache(66%) was the most common symptom for Which Self-Medication was practiced which was consistent with other studies.^{5,14,17,19} second most common symptom was found to acidity (59%) in our study for which Self-Medication was practiced.

In this study we found that the most common reason for initiating the self-medication was the attitude and belief of students that they have sufficient knowledge and information regarding what to take for which ailments (68%) by the their medical knowledge,followed by Time saver (58%) and Mild nature of illness (46%), which were also the most common reported reason for self-medication found in other studies.¹⁴⁻¹⁹ Regarding frequency of Self-medication is concerned, most of the students had taken medicines on as and when required (52%) basis followed by once daily (24%), which was similar to result found in study conducted in western India.¹⁴ and Pakistan.⁷

The study group mentioned the most common source of information for Self-medication was Internet and Mobile apps which is contrary to other studies which revealed the main source of information as Old prescriptions, Seniors and Books.^{7,8,10,12,15-19}

CONCLUSION

Self-medication is widely practiced among undergraduate medical students, In this situation we need to enhance the medical knowledge of commonly used drugs and their side effects during the Pharmacology classes in second year MBBS and should educate students regarding the advantage and disadvantages of practicing Self-medication and make them aware regarding information what they find in Internet or Mobile App is not always medically correct and valid, and they should not fall in trap of any advertisement strategy regarding miracle effects of drugs over online internet platform and should must take medical advice from concerned consultants before reaching to any conclusion regarding tentative diagnosis and taking any drug by own.

REFERENCES

1. World Health Organization: Guidelines for the regulatory assessment of Medicinal Products for use in self- medication 2000. Available:<http://apps.who.int/>

- medicinedocs/pdf/s2218e/s2218e.pdf. [Last accessed on 21 July 2019].
2. Loyola Filho AI, Lima-Costa MF, Uchoa E. Bambuí Project: a qualitative approach to self-medication. *Cad Saude Publica*. 2004;20:1661–69.
 3. Balamurugan E, Ganesh K. Prevalence and pattern of self-medication use in coastal regions of South India. *BJMP*. 2011;4:a428
 4. Hussain S, Malik F, Hameed A, Ahmad S, Riaz H. Exploring health seeking behavior, medicine use and self-medication in rural and urban Pakistan. *South Med Rev*. 2010; 3: 32–35.
 5. Mehta RK, Sharma S. Knowledge, Attitude and Practice of Self-Medication among Medical Students. *IOSR Journal of Nursing and Health Science* 2015;4:89-96
 6. Hughes CM, McElnay JC, Fleming GF. Benefits and risks of self-medication. *Drug Saf*. 2001; 24:1027-37.
 7. Zafar SN, Reema S, Sana W, Akbar JZ, Talha V, Mahrine S, et al. Self medication amongst university students of Karachi: Prevalence, knowledge and attitudes. *J Pak Med Assoc* 2008;58:214-7
 8. Banerjee I, Bhadury T. Self-medication practice among undergraduate medical students in a tertiary care medical college, West Bengal. *J Postgr Med*. 2012;58: 127–131.
 9. Meaurio G, Temple V, Law F. Prevalence of self medication among students in Papua New Guinea. *Pacific J Med Sci*. 2013; 9:17–31
 10. Nalini GK. Self-Medication among Allopathic medical Doctors in Karnataka, India. *BJMP*. 2010;3:325
 11. Bell E. Dangers of Self-Medications (2011;). Available at: http://EzineArticles.com/?expert=Eva_Bell. Last Accessed on 21 July 2019.
 12. Badiger S, Kundapur R, Jain A, Kumar A, Pattanshetty S, Thakolkaran N, et al. Self-medication patterns among medical students in South India. *Australas Med J*. 2012;5:217-20.
 13. Kumar N, Kanchan T, Unnikrishnan B, Rekha T, Mithra P, et al. Perceptions and Practices of Self-Medication among Medical Students in Coastal South India. *PLoS ONE*. 2013;8:e72247.
 14. Kasulkar AA, Gupta M. Self Medication Practices among Medical Students of a Private Institute. *Indian Journal of Pharmaceutical Sciences*. 2015;77:178-182
 15. James H, Handu SS, Al Khaja KA, Ootom S, Sequeira RP. Evaluation of the knowledge, attitude and practice of self-medication among first-year medical students. *Med Princ Pract*. 2006;15:270-75.
 16. Ullah H, Khan SA, Ali S, Karim S, Baseer A, Chohan O, et al. Evaluation of self-medication amongst university students in Abbottabad, Pakistan; prevalence, attitude and causes. *Acta Pol Pharm*. 2013;70:919-22.
 17. Abay SM, Amelo W. Assessment of Self-Medication Practices Among Medical, Pharmacy, and Health Science Students in Gondar University, Ethiopia. *J Young Pharm*. 2010;2:306-10.
 18. Osama B Albasheer, Mohammed Salih Mahfouz. Self-medication practice among undergraduate medical students of a Saudi tertiary institution; *Tropical Journal of Pharmaceutical Research* October 2016; 15: 2253-59
 19. Sankdia RK, Agrawal M, Rekha PB, Kothari N. A Questionnaire Based Study Regarding the Knowledge, Attitude and Practice of Self-Medication Among Second Year Undergraduate Medical Students. *Int J Pharmacol and Clin Sci*. 2017;6:01-05.

Source of Support: Nil; **Conflict of Interest:** None

Submitted: 25-07-2019; **Accepted:** 02-08-2019; **Published:** 28-08-2019