



SELF-MEDICATION PATTERN OF UNDERGRADUATE MEDICAL STUDENTS IN A NORTH INDIA MEDICAL COLLEGE

Pharmacology

Sachchidanand Tewari*

Assistant Professor, Department of Pharmacology, T.S.M. Medical College and Hospital, Amausi, Lucknow, UP 226008. *Corresponding Author

Pramod Kumar Singh

Tutor, Department of Pharmacology, T.S.M. Medical College and Hospital, Amausi, Lucknow, UP 226008.

ABSTRACT

BACKGROUND: The study was done to evaluate various aspects of self-medication in medical students. Self-medication results in increases resistance of pathogens and generally causes serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence. This study is done to determine the reasons for self-medication and the pattern of self-medication among medical students.

METHOD: A prospective, cross-sectional, questionnaire-based study was carried out among 120 medical students selected by simple random sampling. This study was done at T.S.M. Medical College and Hospital, Lucknow, UP. The participants were medical students from second year. Medical students were selected through convenience sampling. The data was collected using a pre-tested semi-structured questionnaire. Data observed was analysed showing percentage figures.

RESULTS: A total of 120 students, 66 (55%) females and 54 (45%) males, were included in the study. Of the medical students surveyed, self-medication was reported among 89.5%. The respondents who used self-medication found it to be timesaving in providing relief from minor ailments. The most common ailments for which self-medication were used were: the fever (70%), common cold (65%), headache (30%) and cough (30%).

KEYWORDS

Self-medication, medical students, self administration, questionnaire, non-prescription drugs.

HOW TO CITE THIS ARTICLE:

Tewari S, Singh PK. Self-medication pattern of undergraduate medical students in a north India medical college. International Journal of Scientific Research. 2018;7,12:397-98

INTRODUCTION:

Self-medication is a common among people. Medical students are more prone to do self-medication because of their incomplete knowledge of disease and medicines. Self-medication can be defined as obtaining and consuming drugs without the advice of a doctor/physician for diagnosis, prescription or surveillance of treatment.[1,2] Self-medication differs from self-care in that it involves drugs that may do good or cause harm.[3] There are a number of studies done earlier and proved self-medication inappropriate. It has been found that inappropriate self-medication causes wastage of resources, increases resistance of pathogens and generally causes serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence. [3,4,5,6]

There are many reasons for the increased likelihood of self-medication among medical students. [3] These students have easy access to information from drug indices, literature, and other medical students to self-diagnose and self-medicate. In addition, they have easy access to the medication itself through physician samples provided by pharmaceutical representatives, and "The White Coat" guarantees trouble-free access to drugs available in pharmacies. Self-medication is associated with many problems as incorrect self-diagnosis, inadequate treatment of a disease, which can result in disease progression and complications. [7]

The present study was undertaken to identify the reasons for, and the patterns of, self-medication among medical students of T.S.M. Medical College and Hospital, Lucknow, UP, India

METHOD:

This cross-sectional study was undertaken in T.S.M. Medical College and Hospital, Lucknow, India. The study population consisted of medical students of first year to third year within the age group of 18–25 years. Students were selected for the study by a convenient sampling method. The participants were briefed about the nature of the study, consent was given and a pre-tested semi-structured questionnaire administered to them. The information about self-medication, indications for self-medication and drugs used for self-medication were included in the questionnaire. [9] Questionnaire is collected and data is analysed in percentage.

Great care has been taken to preserve the anonymity of survey participants. The participation is voluntary and no money or other incentives would be given to participants. The information they provide will not be divulged to others without their permission, and that their identities will not be disclosed to third parties.

RESULTS:

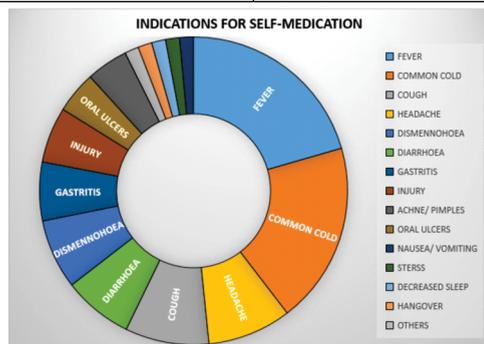
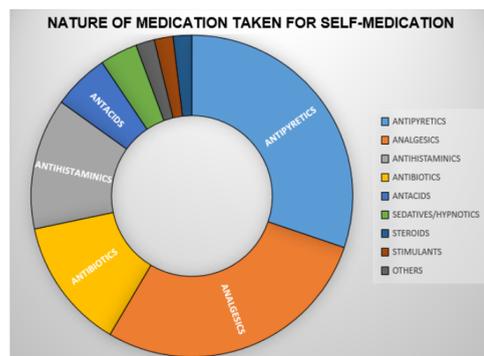
Total 134 students (75 females, 59 males) were asked about self-medication practices, out of which 120 (89.5%) students said accept self-medication practices. A total of 120 students participated in the study, of whom 66 (55%) were female and 54 (45%) were male. Second year students were included in this study. Data collection tools included a 6-items questionnaire (A-F). Data was further analysed in percentage.

Table 1: Pattern of self-medication among medical students

Questions	Responses	
A - Self-medication - Yes/No (N=133)	Yes 89.5%	No 11.5%
B – Medication suggested to family/friends (N=120)	Yes 60%	No 40%
C - Reasons for self-medication (N=120)	No. of students	%
i. Minor ailment	102	85%
ii. Lack of time to consult doctor	07	05.8%
iii. Did not want to consult faculty	06	05%
iv. Finished pharmacology, have confidence	05	04.1%
D - Awareness of adverse effects (N=120)	No. of students	%
Yes	92	76.6%
No	28	23.3%
E - Adverse reactions (N= 120)	No. of students	%
1. Experienced	14	11.6%
i. Stopped/ Changed medicine	08	06.6%
ii. Consulted a doctor	06	05%
2. Not experienced	106	88.3%
F - Source of information of medicines (N=120)	No. of students	%
i. Textbook	49	40.8%
ii. Senior/classmate/family	41	34.1%
iii. Internet	15	12.5%
iv. Pharmacist	15	12.5%

Table 2/ Figure 1: Common indications for self-medication

INDICATION	% RESPONSE
FEVER	70
COMMON COLD	65
COUGH	30
HEADACHE	30
DISMENOHOEA	25
DIARRHOEA	25
GASTRITIS	21
INJURY	20
ACHNE/ PIMPLES	15
ORAL ULCERS	15
NAUSEA/ VOMITING	05
STERSS	05
DECREASED SLEEP	05
HANGOVER	05
OTHERS	05

**Figure 2: Nature of medication taken for self-medication**

DISCUSSION:

The attitude of undergraduate students towards self-medication was high. The major reason seems to be self-confidence, because of their skills and medical knowledge gained from their medical study. [10] Self-medication practices among medical students are quite prevalent and important concern. [4] This study shows that it is even more prevalent among medical students. This study has found a prevalence of self-medication of 90% in medical students. It is also shown that a high level of education and professional status are predictive factors for self-medication. [3] There are similar studies done in past. This is similar to the findings in a study conducted by Hem E et al. (2005) showing 90% prevalence but is higher than the findings of James H et al. (2006) which was 60% in the study [3,5]

In our study it was found that more male students (91.5%) practice self-medication than female students (88%). This differs from a previous study conducted among medical students, which showed a greater prevalence among female students (45%) than male students (44%). [3] James H, Handu SS et al. (2006) reported the reasons as mild illness (40%) and shortage of time to consult a doctor (32%) as a reason for self-medication. The next common reason for self-medication in our study among medical students was their confidence in self-diagnosis (05%). Misplaced confidence can lead to inappropriate self-medication and can expose the participants to all the risks associated with inappropriate use of medications. [3] Maryam Al-Hussaini et al. (2014) told that overall prevalence of self-medication was 97.8% in Kuwait. The age was significantly inversely proportional

to self-medication. There was a significant difference between male and female students in self-medication practice. Headache was the highest health conditions that most frequently motivated self-medication with 90.1% prevalence, followed by 84.7% for dysmenorrhea and 60.3% for constipation. [10]

James H, Handu SS et al. (2006) described that self-medications commonly taken are antipyretics (43%), analgesics (81%), antibiotics (6%) and antihistamines (13%). [3] With respect to indications, results were similar to those found in a previous study. [3]

Sarahroodi S et al. (2010) found that students (N=68) used more types of antibiotics compared to the non-medical students (N=69), which may be because of their knowledge about antibiotics. [7] We have found, however, that 11.6% of the medical students are not afraid of using drugs with potentially harmful adverse effects and potential for addiction and abuse, i.e. sleeping pills (05%), steroids (05%) and stimulants (05%). 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, and previous studies have reported higher use of antimicrobials when the study participant was a healthcare professional. [3] Being a medico even prescription drugs are easily available without prescription.

Despite studying in detail about all these drug reactions, 28% of the students were unaware of the adverse effects of the drugs they used for self-medication. In addition to this, 11.6% of the study group reported experiencing adverse effects, for which they either consulted a doctor or stopped the medication.

The study group cited their source of information for self-medication in most cases as textbooks (34.1%) and seniors or classmates (31.6%); this is similar to other studies, which showed medical students use their academic medical knowledge 50% of the time to self-medicate. [7]

CONCLUSION:

In this study we have found that self-medication practices are quite prevalent in undergraduate medical students. In this study we have found that information from internet also play an important role in self-medication other than textbooks, friends/ relatives/ seniors, pharmacist. Self-medication is further facilitated by easy availability of medicines to medical students. Unawareness of adverse effects is also a major concern. 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 emphasised to the students to minimise this risk. Restriction of sale of drugs without prescription and with potentially harmful effects should be implemented effectively with monitoring systems. Pharmacists need to cross-check with the prescribing physician while dispensing such drugs.

ACKNOWLEDGEMENTS: The authors would like to thank the medical students for participating in this study.

CONFLICT OF INTEREST:
NONE

REFERENCES:

- Shankar PR, Partha P, Shenoy N. Self-medication and nondoctor prescription practices in Pokhara valley, Western Nepal: a questionnaire-based study. BMC Fam Pract. 2002;3:17.
- Montastruc JL, Bagheri H, Geraud T, Lapeyre Mestre M. Pharmacovigilance of self-medication. Therapie. 1997;52:105-110.
- 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.
- Hughes CM, McElnay JC, Fleming GF. Benefits and risks of self medication. Drug Saf. 2001;24:1027-1037.
- Hem E, Stokke G, Reidar Tyssen R, Grønvold NT, Vaglum P, Ekeberg O. Self-prescribing among young Norwegian doctors: a nine-year follow-up study of a nationwide sample; BMC Med. 2005;3:16.
- Kiyngi KS, Lauwo JAK. Drugs in home: danger and waste. World Health Forum 1993;14:381-384.
- Awad AI, Eltayeb IB. Self-medication practices with antibiotics and antimalarials among Sudanese undergraduate university students. Ann Pharmacother. 2007;41:1249-55. [PubMed: 17565044]
- Sarahroodi S, Arzi A, Sawalha A.F., Ashtarinezhad A. Antibiotic Self-Medication among South Iranian University Students. International Journal of Pharmacology 2010.6(1): 48-52
- Badiger S, Kundapur R, Jain A, Kumar A, Patanashetty S, Thakolkaran N, Bhat, Ullal N. Self-medication patterns among medical students in South India. AMJ 2012, 5, 4, 217-220.
- Maryam Al-Hussaini, Seham Mustafa, and Seham Ali. Self-medication among undergraduate medical students in Kuwait with reference to the role of the pharmacist. J Res Pharm Pract. 2014 Jan-Mar; 3(1): 23-27.