

## Questionnaire Based Assessment of Knowledge Attitude and Practice of Self Medication among Medical Undergraduates of A Medical College in North India

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### Abstract

Self medication is defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment. Practice of self medication is rampant among medical undergraduates. Hence the present study was undertaken with an objective to assess the knowledge, attitude and practice of self medication among medical undergraduates in our Institution. A cross - sectional study was conducted among the undergraduates from 1<sup>st</sup> to 3<sup>rd</sup> semester of MBBS. A total of 200 students were enrolled in the study and they were required to fill up the questionnaire which contained questions regarding knowledge, attitude and practice of self medication. Out of 200 students, 173 (86.5%) had taken self medication over the past 1 year. Minor illness (54.5%) was the main reason for self medication and the fear of risk of adverse effects (54.5%) was the main deterrent against self medication. 59% students had a negative attitude towards self medication and it was unacceptable to 56.5% students. The most common morbidity for self medication was cough and common cold (54%). Although 53% students admitted to the fact that self medication was bad for health, but still 65.5% students were in favour of practising self medication in future. Our study shows that self medication is widely practiced among the medical undergraduates of our Institution. Sensitisation of the medical undergraduates regarding the irrational use of medicines in terms of self medication is required on an urgent basis to curb this menace of self medication.

### Keywords

Self Medication, Medical Undergraduates, Questionnaire

### Introduction

Self medication is the treatment of common health ailments with medicines which are taken without medical supervision, on patient's own initiative or on an advice of a pharmacist. Self medication is defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment.(1) Self medication includes various type of activities like acquiring medicines without a prescription, resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of one social circle, using left over medicines stored at home or failure to comply with prescription (either by prolonging or interrupting it too early) or decreasing or increasing the originally prescribed dosage.(2) Self medication forms

an integral part of self care. But it differs from self care in that it involves drugs that may do good or cause harm.(3)

The disadvantage of inappropriate self-medication is wastage of resources, increased resistance of pathogens, serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence. Whereas appropriate self-medication has several advantages like readily relief of acute medical problems, can save the time spent in waiting to see a doctor, is economical and can be life saving in emergency situations.(4) Various studies on self medication show that it is influenced by factors such as age, socioeconomic status, education level, access to medical information,

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exposure to advertisements, awareness about health, easy accessibility to medicines and healthcare facilities.(5) There are many reasons for self medication, such as mild illness, previous experience with the symptoms or disease, home kept prescription drugs and lack of availability of healthcare personnel.(4) Various studies on self medication show that it is influenced by factors such as age, socioeconomic status, education level, access to medical information, exposure to advertisements, awareness about health, easy accessibility to medicines and healthcare facilities.(5) There are many reasons for self medication, such as mild illness, previous experience with the symptoms or disease, home kept prescription drugs and lack of availability of healthcare personnel.(4) Self medication is rampant worldwide, but is more seen in developing countries like India, as it provides low cost alternative for people who cannot afford the high cost of clinical care and easy access to drugs which are dispensed over the counter without prescription from a registered medical practitioner.(6) The youth worldwide is vulnerable to self medication, as they are highly influenced by the media and the internet which promotes self medication behaviour. The increased advertisements by pharmaceuticals adds to the threat of exposing the youth to self medication.(7) There are various factors which lead to the increased likelihood of self medication among medical undergraduates. These are easy access to drug information from drug indices, medical textbooks and other medical undergraduates to help them to self diagnose and self medicate. In fact they have easy accessibility to medicines either from the pharmacies or through physician samples provided by the pharmaceutical representatives.(3) Hence it is all the more important to conduct studies to assess self medication among medical undergraduates as they are the future doctors and their attitude towards pharmacotherapy could affect the way they will prescribe a medicine in the future.

Various studies have been shown that self medication is prevalent among practising physicians.(8,9) Few of the studies have been conducted both in India and abroad to ascertain self medication practice among medical undergraduates.(2-4, 6, 10-18) Among the Indian studies, many have been conducted in South India, there is paucity of such studies in North India. Hence the present study was undertaken with an objective to determine the knowledge, attitude and practice of self

medication among medical undergraduates in our Institution.

### **Materials & Methods**

Ethics Committee approval was obtained from the Institutional Ethics Committee of Acharya Shri Chander College of Medical Sciences and Hospital, Jammu, before commencement of the study. This cross-sectional study was carried out among the undergraduates of 1<sup>st</sup> to 3<sup>rd</sup> semester students, in a form of a questionnaire that was carried out in the period October -November 2016. Nearly all students voluntarily participated in the study after being briefed in detail about the goals and methods of the study. Informed consent was taken from students. The survey was anonymous and all obtained data was kept as confidential. Questionnaire was divided into four sections. The first section of the questionnaire included basic data about respondents (sex, age, 1<sup>st</sup>/3<sup>rd</sup> semester) and personal habits (tobacco smoking, alcohol consumption, use of psychoactive substances, physical activity). The second section of the questionnaire included data about knowledge consisting of questions like reasons for and against self-medication, knowledge about content, what disease, what class of drugs were taken and what was the source of information.

### **Results**

On the day when questionnaire was given, 96 out of 100 students of 1<sup>st</sup> semester MBBS and 89 out of 100 of 3<sup>rd</sup> MBBS students were present, respectively. Absentees were given the questionnaire the next day. A total of 200 MBBS students were assessed for their knowledge, attitude and practice regarding self medication of which 109(54.5%) were males out of which 50% were in favour and 91(45.5%) were females of which 36.5% were in favour of self medication. Age group of students who participated in the study were between 17-22 years. (*Table 1*)

**Knowledge:** When the questionnaire was analysed, students agreed with various reasons that were against and in favour of self medication. Among the reasons in favour of self medication, the most favoured reasons were no need to visit the doctor for minor illness (54.5%), previous experience (28.5%), ease and convenience (12%) and quick relief (10%) and few gave reasons like knowledge from text books, doctor parents and social stigma related to various diseases. (*Table 2*)

**Table 1 Age Distribution of the Students**

S.No.	Age(yrs)	No. of Respondents (%)	Total
1.	17	15	7.5
2.	18	30	15
3.	19	63	31.5
4.	20	52	26
5.	21	28	14
6.	22	6	3
7.	23	4	2
8.	24	2	1

**Table 2 Reasons For Self Medication**

S No	REASONS FOR SELF MEDICATION	%
1.	Time saving	8.5
2.	No need to visit doctor for minor illness	54.5
3.	Economical	1
4.	Quick relief	10
5.	Learning opportunity	2.5
6.	Ease and convenience	12
7.	Avoidance of crowd	1
8.	Previous experience	28.5
S No	REASONS AGAINST SELF MEDICATION	%
1.	Risk of adverse effects	54.5
2.	Risk of using wrong use of drugs	22
3.	Risk of wrong use of drugs	7.5
4.	Risk of missing the diagnosis	20
5.	Risk of drug dependence	11.5

When reasons against self medication were assessed, the most important reason was the risk of adverse effects (54.5%), risk of using wrong drugs (22%), risk of missing the diagnosis (20%) and risk of drug dependence (11.5%).(Table 2) Few students stated that the condition may worsen and drug resistance may occur. Level of knowledge about the medication among the students revealed that 50.5% just knew about the content of the drug and 49.5% had no knowledge about the drug.(Table 3)knowledge about the drug.(Table 3)

#### Attitude

The attitude of maximum number of students was negative (59%) and were against self medication (56.5%) while

others had a positive attitude (28.5%) and self medication was acceptable to them (33%).

When enquired about the influence of medical education on their attitude towards self medication, 76.5% agreed that they have become more cautious and hence they are against self

**TABLE 3-Knowledge about the medication**

S No	Level of knowledge about the medication	Number (Agree)	Percentage (%)
1.	Content	101	50.5
2.	Content and Dose	61	30.5
3.	Content ,Dose and duration of therapy	59	29.5
4.	Content ,Dose ,duration of therapy and adverse drug reaction of the drug	26	13
5.	No knowledge	99	49.5
6.	After entering medical field how many became careful	142	71

**Table 4. Source of Information for Self Medication**

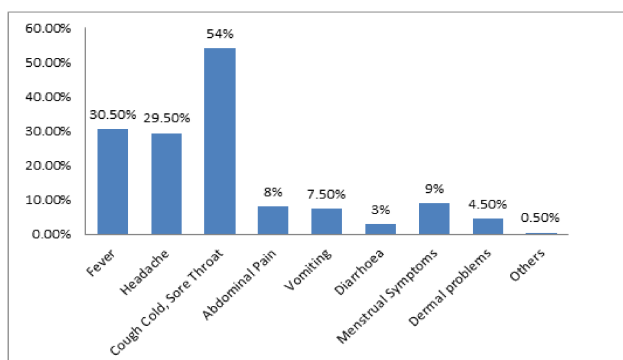
S No	Source of information	Frequency	Percentage (%)
1.	Television	4	2
2.	Internet	77	38.5
3.	Lecture class	41	20.5
4.	Friends and relatives	44	22
5.	Print media	4	2
6.	Past exposure	59	29.5

medication. The reasons they quoted for negative behaviour were adverse drug reactions, drug resistance and drug dependence. Those in favour of self medication found no harm in self medication for minor illness.

#### Practice

Despite the attitude being against self medication,86.5% of students practiced self medication. Majority said that they learned from internet (38.5%),past exposure (29.5%) and friends and relatives (22%).(Table4) When asked about how many times in the past year medication was taken, 53% didn't remember and 12.5% had taken it more than thrice in the past year.

**Fig 1. Indication of self medication**



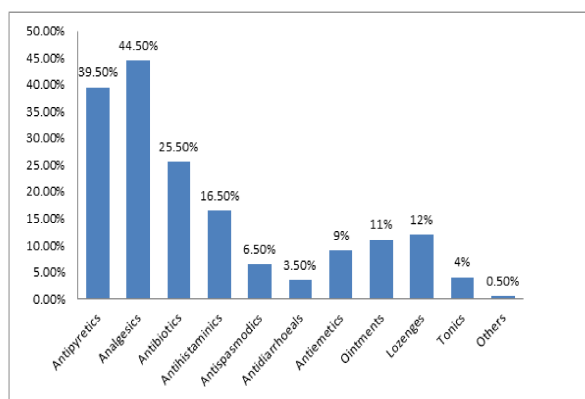
The most common illness for which self medication was taken was cold, cough, sore throat (54%), fever (30.5%) and headache (29.5%). (**Fig 1**)

The most common drugs taken as self medication were analgesics (44.5%), antipyretics (39.5%), antibiotics (25.5%) and antihistaminics (16.5%). (**Fig 2**) Few other drugs taken were anti anxiety and anti fungal drugs. Majority of students stated that practice of self medication on regular basis is bad for health 53% whereas, 9.5% stated that it is good for health and rest 25% didn't comment. 65.5% of respondents confirmed that they will take self medication in future for various reasons discussed above

**Discussion**

The present study gives an insight into knowledge, attitude and practice of self medication among medical undergraduates of our Institution. A total of 200 students from 1<sup>st</sup> to 3<sup>rd</sup> semester, participated in this cross sectional study.

**Fig 2 List of drug found for self medication**



This study has found a prevalence of self medication in 86.5% medical undergraduates. It is similar to the findings in various studies conducted on medical undergraduates where prevalence of self medication is (100%) (12), (92%) (3), (88%) (2), (84%) (13) and (78.6%) (11). Whereas, self medication among medical undergraduates has been found to be much lower than our study with the range from 44.8% to 71.7% in other studies. (4,6,10)

In our study, it was found that the practice of self medication was more prevalent among male students (50%) than female students (36.5%). The results of our study are in concordance with other studies (3,13) where the practice of self medication was higher among male students as compared to female students.

In contrast to our study, various other studies have shown the female preponderance in seeking self medication. (2,6,7 10-12) The present study denoted that the common reasons for self medication were minor illness (54.5%) and previous experience (28.5%) which is in sync with the studies that too reported the main reason for self medication as minor illness (82%) (3), (79.4%) (13), (70.5%) (11), (47.19%) (6), (40.6%) (2). Studies which reported a prior experience as the main reason for self medication were conducted in Karachi and Malaysia. (15,16)

The main reasons against self medication as perceived by the respondents in the present study were the risk of adverse effects (54.5%), risk of using the wrong drugs (22%) and risk of missing the diagnosis (20%). Similar results were seen in the studies conducted in Nepal, (13) Bahrain. (4)

Regarding the level of knowledge about self medication, the respondents of our study fared better as compared to the study conducted on nursing students. (17) 50.5% vs 34.17% had the knowledge about the content of the drug. 71% of the students in our study pointed out that their knowledge in medicine, has made them more careful while taking drugs without prescription.

In the present study, majority (59%) students had a negative attitude towards self medication and it was found to be unacceptable in 56.5% students. This is in

to risk of misdiagnosis of the disease. Whereas, awareness and increased understanding of adverse effects of drugs lead to positive attitude towards self medication in other students. 86.5% students in our study replied in affirmative when enquired about their practice of self medication in the past one year. Similar high degree of self medication in the range of 92% to 78% has been seen in many studies (2,3,13,11)

The morbidities which prompted the medical students to practice self medication in our study were cough and common cold (54%), fever (30.5%) and headache (29.5%). These results are in concordance with the various studies showed similar results(2,3,4,6,10-13)

The drugs which were frequently used for self medication in the present study were analgesics 44.5%, antipyretics 39.5% and antibiotics 25.5%. Our results are in sync with the other studies, where the class of drugs used, is exactly in the same order as ours. These are studies conducted by Sunitha M *et al* (2) (analgesics 34.4%, antipyretics 30.3% and antibiotics 11.7%) and Mehta RK *et al* (13) (analgesics 75.8%, antipyretics 46.8% and antibiotics 40.3%).

In the present study, internet (38.5%) was the main source of information for self medication, followed by past exposure (29.5%) and information from friends and relatives (22%). Similar results were reported by Sunitha M *et al* (2) where past exposure (49.2%) and information from friends and relatives (32.1%) were the two main source of information regarding self medication.

Considering the practice of self medication, 53% students thought that practicing self medication on regular basis was bad for health and 9.5% students considered it as good for health. Sunitha M *et al* (2) too reported similar results, where 53.6% and 10.6% students considered self medication as bad and good for health respectively. In our study, 65.5% of medical undergraduates were in favour of practicing self medication in future. Contrast was seen by Sunitha M *et al* (2) where 59% of students were not in favour of practising self medication in future. The reasons in favour of self medication ranged from taking the medicines for minor illnesses to being a

medical student so having the knowledge about drugs. Whereas the main deterrents for students who didn't want to practice self medication in future was their awareness of adverse effects of drugs and risk of wrong diagnosis. In our study, inspite of having a negative attitude towards self medication and it being unacceptable to majority of the students, self medication was widely practiced by the students of our Institution. These are contradictory statements which can be explained on the basis that although the students had knowledge about the benefits and risks of self medication but when it came to actual practice, the students seemed to be more influenced by the ease and convenience of self medication and the availability of the drug information on the internet which attributed to their increased inclination towards practice of self medication.

### **Conclusion**

Our study shows that self medication is widely practiced among the medical undergraduates of our Institution. Majority of the students had knowledge of the benefits and risks involved in self medication, whereas only half of the students had knowledge about the drug they took as self medication. Although majority of the students, had a negative attitude towards self medication and it was found to be unacceptable to more than half of the students. But majority of the students practiced self medication. Though self medication is a convenient alternative to treat minor illness and even to manage acute emergencies but inappropriate self medication may have deleterious effect on the health.

Hence, in such a scenario, multicentric studies are the need of the hour to evaluate the knowledge, attitude and practice of self medication involving wider section of medical students across various medical colleges throughout the country. This will provide an estimate of the magnitude of self medication among the medical fraternity. Sensitisation of the medical undergraduates regarding the irrational use of medicines in terms of self medication is required on an urgent basis to curb this menace of self medication.

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