

ORIGINAL RESEARCH**To determine the Prevalence and Patterns of self-medication among MBBS students****Dr. Sameer Srivastava**

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Corresponding Author: Dr. Anupam Tyagi, Assistant Professor, Department of Pharmacology, MaharshiVashishtha Autonomous State Medical College, Basti**ABSTRACT****Aim:** To determine the prevalence and patterns of self-medications among MBBS students.**Methods:** A cross-sectional observational study was done among the MBBS Students. Informed consent from every student had been filled up before starting of the study. Seriously ill, chronically absent and not willing subjects were excluded from the study. The questionnaire had two parts, the first one was prepared to record the demographic profile and the second part was to assess the Knowledge, Attitude and Practice (KAP) of self-medication among the students. The MBBS students were contacted with the digital questionnaire through different methods.**Results:** Out of 220 students included in this study, 200 students were under self-medication. Amongst these 200 participants, 62.5% were males and rest was females. Most of the students taking self-medication were between the ages of 19 to 25 years. 50% students used their previous experiences for self-medication followed by 30.5% with minor diseases, 25.5% with saving of time while 20.5% used self-medication seeking for immediate relief and 17% as an easy way. 40% used old prescription of doctors, 38% used textbooks as the most prevalent sources of information about the drugs used for self-medication. The most prevalent drugs for self-medication practice were analgesics (42%) followed by anti-ulcerants (35%), antipyretics (27.5%), and antibiotics (20.5%).**Conclusion:** We concluded that there was high prevalence of self-medication amongst the MBBS Students, so government should implement some strict rules and regulations.**Key words:** Self-medication, Demographic profile, KAP, Digital Questionnaire, MBBS students.

Introduction

Self-medication is the practice of intake of medicines by the people on their own or with help of a pharmacist, but without proper advice or prescription from a medical professional to treat a self-diagnosed condition.¹ According to WHO, self-medication is a part and parcel of self-care which is again an important resource of primary healthcare system.² It is quite a prevalent practice worldwide, due to various factors like inaccessibility of health services, easy procurement of over the counter drugs, weak drug dispensing legislations and with wide access to internet.¹ Various socio-demographic factors are also responsible for self-medication practice. When Improvement in educational level increases, the risk of taking behavior to treat oneself out of over-confidence, on the other hand low socio-economic status forces people to get over-the-counter medicines directly to save money without opting for professional help to avoid doctor's fee.^{2,3} Irrational self-medication is detrimental to health as it enhances the risks of adverse drug reaction, antimicrobial resistance and also leads to wastage of resources.⁴ Over-dosage or under-dosage may lead to damage of organs or incomplete cure. Repeated self-medication can also produce drug dependence to certain drugs and misdiagnosis by professionals if being visited for incomplete cure, as symptoms are masked temporarily.⁵ 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.^{4,6} When student progress through courses of study, self-medication practice increase with increment in their ability of diagnosis of different clinical conditions and knowledge of the use of drugs.⁷

Material and methods

A cross-sectional observational study was done among the MBBS Students. Verbal informed consent was taken from every student before starting of the study. Seriously ill, chronically absent and not willing students were excluded from the study. The study tool consisted of a questionnaire which was prepared in English language and had not been translated into vernacular, as all the study subjects could understand English well. The questionnaire had two parts, first one was prepared to record the demographic profile and the second part was to assess the KAP of self-medication among the students. The MBBS students were contacted with the digital questionnaire through different methods. Reliability had been checked by test retest method ($r=0.78$). Necessary corrections and modifications were made accordingly.

Results

Total 220 students were included in this study, out of which 200 students were under self-medication. Amongst these 200 participants 62.5% were males and rest was females. All the self-medicated students were between the ages of 19 to 25 years. 50% students observed for self-medication to be their previous experiences, 35.5% with minor diseases followed by 25.5% for saving of time, 20.5% seeking for immediate relief and 17% as an easy way along with others as shown in the table-3. Table-4 shows that 40% Old prescription of doctor, 38% textbook were the most prevalent sources of information about the drugs used for self-medication. Table-6 shows that 42% analgesics were the most prevalent drugs for self-medication practice followed by 35% anti-ulcerants, 27.5% anti-pyretics and 20.5% antibiotics.

Table-1. Self-medication

Self-medication	Number of the students	Percentage %
Yes	200	90.90
No	20	9.10

Table -2. Gender of the students

Gender	Number of the students	Percentage %
Male	125	62.5
Female	75	37.5

Table-3. Reasons for self-medication

Reasons for self-medication	Number of the students	Percentage %
Previous experiences	100	50
Minor diseases	61	30.5
Saving of time	51	25.5
Seeking for an immediate relief	41	20.5
Easy way	34	17
High fees of medical consultation	30	15
Doctor busy with many patients	21	11.5
Long distance from Doctors	14	7
Advice from others	10	5
No faith in Heathcare system	6	3

Table- 4. Sources of Information

Sources of Information	Number of the students	Percentage %
Old prescriptions of doctors	80	40
With the help of textbooks	76	38
Self-decision	60	30
Opinion of friends & family	50	25
Internet	40	20
Media platform	10	5

Table -5 Symptoms for self -medications

Symptoms	Number of the students	Percentage %
Headache	90	45
Running nose	80	40
Fever	72	36
Vomiting	60	30
Diarrhea	50	25
Cough	44	22
Eye infection	36	18
Menstrual Problems	30	15

Table-6. Drugs used in self-medications

Drugs used	Number of the students	Percentage %
Analgesics	84	42
Anti-ulcerants	70	35
Antipyretics	55	27.5
Antibiotics	41	20.5
Antihistaminics	32	16

Cough syrup	30	15
Anti-emetics	20	10
Eye or ear drop	19	9.5
Steroids	10	5

Discussion

Prevalence of self-medication has remained common in both developing and developed countries.⁶ In the present study, the prevalence of self-medication was about 90.9%. In various previous studies conducted in developing countries, the prevalence of self medication was variable like 94% in Oman, 80.7% in Iran, 65% in India, 62.9% in Egypt etc.⁸⁻¹⁶ The prevalence of self-medication varies in different countries ranging from 38.5% to 92% due to differences in demographic characteristics of study population, research methodology, data collection tools.¹⁰ Poor implementation of pharmaceutical rules due to various reasons like lack of adequate supervision by the concerned authorities may be the reason for high prevalence of self medication. In Bangladesh, like many other countries, dangerous and risky medications must be sold with prescription. In this study, out of 200 participants, 62.5% were males and rests of the students were females. Our study is also similar with some other studies.¹⁶⁻²⁰ Female students used self-mediations for menstrual disorders.

In our study, 45% headache, 40% runny nose, 36% fever, 22% cough and 15% menstrual problems were most common diseases of self treatment. These findings were in accordance to previous studies.¹²⁻¹⁵

In our study, 42% analgesics were the most prevalent drugs for self-medication practice followed by 35% anti-ulcerants, 27.5% antipyretics and 20.5% antibiotics. Some other studies also had similar results in India¹⁴, Saudi Arabia¹², Iran¹⁵, Tehran⁸ and Turkey.¹⁹ Major reasons for practice of self-medication, as we observed in this study were, their previous experiences (50%), minor diseases (35.5%) followed by saving of time (25.5%), seeking for immediate relief (20.5%) and easy way (17%). These findings were in accordance to previous studies.⁸⁻¹⁴

Old prescriptions of doctor (40%) and textbooks (38%) were the most prevalent sources of information about the drugs used for self medication. These findings were in accordance to previous studies, where students learned medications from doctor's prescription provided during their previous illnesses.^{13,21} Another study done in Egypt reported that advice from pharmacy clerk (69.9%), neighbors & family (62.2%), friends & classroom colleagues (40.6%) were the leading sources of information.¹¹ Participants obtained drug for self-medication from pharmacy shop mainly (78%) followed by family/ friends (30%). These findings were in accordance to previous studies.¹²

Self-medication of antibiotics and improper use can lead to antibiotic resistance/ toxicities etc. Therefore, this kind of practice should be discouraged.

Conclusion

Self-medication is a global phenomenon and is an alarming sign for our society. Self-medication with OTC drugs may lead to adverse drug reactions, drug-drug interactions, skin problems, hypersensitivity reactions, allergy and even death. Self-medication can be prevented or minimized by increased awareness and education in society.

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