

KNOWLEDGE, ATTITUDE AND PRACTICE OF SELF-MEDICATION AMONG MEDICAL COLLEGE STUDENTS IN KERALA

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ABSTRACT

BACKGROUND & RATIONALE

Self-medication is defined as the selection and use of medicines by individuals to treat self-recognised illness or symptoms. Practice of self-medication, especially by medical students can cause wastage of resources, bacterial resistance, drug addiction and serious adverse drug reactions. The objective of our study is to evaluate the knowledge, attitude and practice of self-medication among medical college students in Kerala.

METHODS AND MATERIAL

MBBS students of a private medical college were included in the study. The students filled a structured pretested questionnaire and descriptive statistics was applied to the data with SPSS version 20.

RESULTS

Out of 300, 264 (88%) students had taken self-medication over the past 1 year. Past exposure with the same drug was the significant source of information for the drugs (49.2%) and the drugs frequently self-medicated were analgesics 34.4% (91) and antipyretics 30.3% (80). More than half of the students, 66% (198) students had expressed positive and 34% (102) students had expressed negative attitude towards self-medication. Around 66% students declared that they were not aware of the dose, frequency and adverse effects of the drugs.

CONCLUSION

The pattern of self-medication practice from our study was similar to other studies done in various parts of India. Similar studies in future will provide adequate information to regulatory authorities to implement these results on strict drug dispensing and drug advertising policies.

KEYWORDS

Self-medication, Medical College Students, Kerala.

KEY MESSAGES

Rising trend in self-medication practices among medical college students in Kerala.

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INTRODUCTION: Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment.¹ According to WHO, self-medication is defined as the selection and use of medicines by individuals to treat self-recognised illness or symptoms.² self-medication can take place through the consumption of industrialised or manipulated medicines or the use of home remedies and include various type of activities like acquiring medicines without a prescription, or resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of one social circle, using left over medicines stored at home or failing to comply with professional

prescription either by prolonging or interrupting it, too early or decreasing or increasing the originally prescribed dosage.³

In a number of developing countries, many drugs are dispensed over the counter without medical supervision. In these cases, self-medication provides a lower cost alternative for people who cannot afford the cost of clinical services.⁴ Studies reveal that an increase in self-medication was due to a number of factors like socioeconomic factors, life style, ready access to drugs, the increased potential to manage certain diseases through self-care and greater availability of medicinal products.⁵ A systematic review on self-medication among students and physicians showed that there was high incidence of self-medication practice in physicians and these self-treatment practices start as early as when aspiring physicians are medical students.⁶ Self-medication would be safe if the people using it have adequate knowledge about its dose, time of intake, side effects on overdose, but being unaware may lead to serious effects like hypersensitivity & drug resistance.⁷

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Practice of self-medication must be based on authentic medical information, otherwise irrational use of drugs can cause wastage of resources, increased resistance of pathogens and can lead to serious health hazards such as adverse drug reactions and prolonged morbidity.⁸

Hence, this study was conducted to know the current trend of self-medication among medical students which will provide knowledge on the incidence of self-medication and also serve as a base for policy makers regarding strict drug dispensing. The objective of our study is to evaluate the knowledge, attitude and practice of self-medication among medical college students.

SUBJECTS AND METHODS: The study was conducted in a private medical college in south Kerala.

Study Design: A questionnaire based cross-sectional study.

Study Duration: The study was conducted over a period of 1 month from November 2014 to December 2014.

METHODOLOGY: The study was commenced after the Institutional Ethical Committee approval. Medical students of 1st and 2nd MBBS were enrolled in the study. After explaining the details of the study with the aims and objectives, informed consent was obtained from all the participating students. The students were informed that the information collected would be anonymous and participation would be voluntary. All students were asked to fill up the structured printed pretested questionnaire. Basic parameters like age, sex, semester was noted. The information about reason for self-medication, type of self-medication, commonly self-medicated drugs, knowledge and attitude towards self-medication were also noted.

The data was entered in SPSS version 20 and descriptive statistics were applied.

RESULTS: A total of 300 medical students were included in the study. Out of 300, 264 students had taken self-medication at least once in the past 1 year. Among this, 29.1% (77) students had taken self-medication more than thrice in one year. Past exposure with the same drug was the significant source of information for self-medication (49.2%) followed by information from friends and relatives (32.1%) and lecture classes (7.9%) as shown in Table 1.

Practice of Self-medication: Fever (38.7%) was the most common illness for which self-medication was frequently sought (Table 2). Among the group of drugs which were commonly obtained for self-medication, analgesics usage was very high 34.4% (91), followed by antipyretics 30.3% (80), antibiotics 11.7% (31), anti-diarrheal 7.5% (20), antihistamines 5.6% (15), antiulcer 5.3% (14) and antitussives 4.9% (13). Paracetamol was the commonest self-medicated drug.

Considering the practice of self-medication, 53.6% (161) students thought that practising self-medication on regular basis was bad for health, 10.6% (32) students

considered it as good for health and around 35.6% (107) students did not want to comment. Around 59% (177) study participants had said they are not in favour of practicing self-medication in future, because of the risk of adverse effects 40.6% (72). Among the students who preferred self-medication practices, 40.6% (50) students felt that it is more time saving than visiting a physician. The two significant reasons given for need of self-medication were because of the illness being mild 35% (105) and to save time on visiting a physician 31.6% (95) as shown in Table 3.

Attitude towards Self-medication: Regarding attitude towards Self-medication, 66% (198) students had expressed positive and 34% (102) students had expressed negative attitude. Among them, 76.6% (230) students were favouring a change in their attitude towards self-medication. Whether asked about the influence of medical knowledge towards attitude change in self-medication, 99 students said that they would prefer seeking a prescription over self-medicating (Table 4).

Knowledge Regarding Self-medication: More than half of the students 56.6% (171) responded that they did not have adequate knowledge regarding the adverse effects and 66% (198) students said that they were not knowledgeable regarding the dose and the frequency of the drugs that they have been taking by themselves. Around 40% had pointed out that their knowledge in medicine made them more careful while taking drugs without a prescription.

DISCUSSION: The prevalence of self-medication in this population was very high (88%) as shown in Table 5, which was almost close to other studies done in Gujarat and New Delhi where the prevalence was between 80% to 90%.^{9,10} The number of females using self-medication was very high in our study. This could be due to more female students enrolled in the state of Kerala than other places. Previous exposure to the same drug was quoted as the main source of information for the drugs consumed. Self-medication studies done by Kumar et al & Gutema et al also share the same results with close to 50% students having similar source of information as our study.^{11,10} Fever & common cold were the commonest illnesses sought for self-medication, amounting to a total of 67.3%, this was again comparable to another study done on medical students in Karnataka.¹²

Among the frequently used self-medicated drugs, our study showed that the analgesics & antipyretics to be the most commonly sought after drugs (34.4% & 30.3%). This was contrary to a study done in Mangalore, where antitussives and antipyretics (74.8% & 68.2%) were the frequently self-medicated drugs followed by analgesics, antihistamines & antibiotics.¹²

The main reason given by many students for not visiting a physician was the mildness of the illness and time factor. Majority of students in our study felt that self-medication was time saving than going to a nearby clinic for consultation as given in Table 3. Contradicting this, few studies show that self-medication was preferred because the medical students

felt that the illness was not very serious to seek immediate medical attention and the prior experience taking the same drug made them more accessible next time. The minor factors stated in other studies were cost effectiveness, emergency, crowd avoidance and gain in self-confidence.^{13,14,15}

In another study done in coastal south India, 45% of students have replied that having sufficient pharmacological knowledge of the drugs was the reason for their self-medication.^{16,13} This is an alarming trend, where medical students use their knowledge to take drugs without prescription.

More than half of our study participants said that self-medication was bad for their health and this coincided with a study result from Karachi where 87% students had a similar opinion.¹⁷

Around 66% students had a positive attitude towards self-medication which was contrary to the study done in Ethiopia, where 52% of students did not agree with self-medication.¹¹ More than half of the respondents in our study did not have adequate knowledge about the dose, frequency or the adverse effects of the drugs they have consumed. Whereas in various studies done previously, the medical students claimed to have adequate knowledge and information about the adverse effects of the drugs that they have been taking on regular basis.^{18,19}

Source	Frequency	Percentage
Television	7	2.6%
Internet	8	3.0%
Lecture class	21	7.9%
Friends & relative	85	32.1%
Print media	13	4.9%
Past exposure	130	49.2%

Table 1: Source of Information for Self-medication

264 out of 300 medical students only practised Self-medication.

Illness	Frequency	Percentage
Common cold	77	29.1%
Fever	101	38.7%
Abdominal pain	18	6.8%
Vomiting	13	4.9%
Diarrhoea	17	6.4%
Headache	27	10.2%
Menstrual disorders	11	4.1%

Table 2: Common Illnesses for which Self-medication was Sought

264 students had taken self-medication for various illnesses.

Reason	Frequency	Percentage
Mild illness	105	40.6%
Time saving	95	25.2%
Cost effectiveness	43	17.8%
Urgency	57	16.2%

Table 3: Reasons for Self-medication

A total of 300 medical students gave various reasons for Self-medication.

Variable	Frequency	Percentage
It would make me more careful	59	19.6%
Prefer seeking a prescription	99	33%
Afraid of adverse effects	58	19.3%
Discourage Self-medication	61	20.3%
Make me more confident	23	7.6%

Table 4: Influence of Medical Knowledge on Student's Attitude

Response	Frequency	Percentage
Yes, I am practising	264	88%
No, I don't practise	36	12%
Total medical students	300	100%

Table 5: Practice of Self-medication

88% of students practised Self-medication.

CONCLUSION: SELF-MEDICATION poses potential risks at various levels including improper diagnosis, drug resistance, drug addiction, etc.²⁰ The pattern of self-medication practice from our study was similar to other studies done in various parts of India. There is a high prevalence of self-medication especially among medical students throughout the country. This is the first study done on self-medication in Kerala medical students. Our study also raises the concern about self-medication in students with medical knowledge, where there are more chances of developing drug addiction and drug resistance due to their easy and frequent accessibility to drugs.

Health education and awareness programmes on the hazards of self-medication should be conducted on regular basis to update the students involved in various health sectors. Further studies exploring others factors of self-medication should be done to provide adequate information to regulatory authorities and policy makers to implement these results on proper drug dispensing and strict drug advertising policies.

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