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Research Article

Study on self-medication among 2nd year medical students

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ABSTRACT

Background: Self-medication is use of medicines by individuals to treat self-recognized symptoms and illness. Self-medication is a common type of self-care behavior in the general public, but medical students differ in such practice, as they have knowledge about drugs and diseases.
Methods: The present study involved 100 2nd year final term medical students in "Shivamogga Institute of Medical Sciences," Shivamogga, Karnataka. Study was questionnaire based, and the results were analyzed by descriptive statistical methods.
Results: In our study, 57% were female, and 43% were male. About 60% had knowledge about over the counter (OTC) drugs and considered Ayurveda drugs also OTC drugs. 25% considered self-medication entirely safe, whereas 61% considered self-medication have advantages. Self-medication was preferred by 72% as they felt that there is no need to consult health care professionals for a simple ailment. Self-medication was practiced by 62% students, among which 86% were appropriate, and 48% among them utilized knowledge from previous consultation. In 28% fever was the most common condition and paracetamol was the most commonly used drug.
Conclusions: Self-medication was widely practiced among the students. They had good knowledge of OTC drugs. The practice of self-medication was almost appropriate. In general self-medication must be accompanied by appropriate information. Educating benefits and risks of self-medication is very much needed for medical students and the public now a day.

Keywords: Self-medication, Over the counter, Medical students, Questionnaire

INTRODUCTION

Health can be defined in two models: negative and positive model of health. The negative model defines health as "absence of the constraints of illness or the absence of disease." Positive model defines health as "State of complete physical, mental, and social well-being and not merely the absence of diseases or infirmity."[1] To have good health individuals practice self-care. Self-care is what people do themselves to establish and maintain health, prevent and deal with illness. It is a broad concept encompassing, hygiene (general and personal); nutrition (type and quality of food); lifestyle (sporting activities, leisure etc.); environmental factors (living conditions, social habits, etc.); socioeconomic factors (income level, cultural beliefs, etc.) and self-medication.[2]

Self-medication is the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms.[3] Self-medication is one of the elements of self-care. These days WHO gives importance on responsible self-medication, where individuals treat their ailments and conditions with medicines which are approved and available without a prescription, and which are safe and effective when used as directed. Responsible self-medication requires that, (I) Medicines used are of proven safety, quality and efficacy, (II) medicines used are indicated for conditions that are self-recognizable and for some chronic or recurrent conditions (following initial medical diagnosis).[4] These medicine products will be available in the pharmacies without the prescription from health care professional, and they are termed as over the counter (OTC) drugs.[5] OTC drugs must be supported by information, which describes, how to use the medicines; effects and possible side-effects; how the effects of the medicine should be monitored; possible interactions; precautions; warnings; duration of use and when to seek professional advice.[6] The prevalence rates of self-medication are high all over the world; up to 68% in European countries, while much higher in the developing countries with rates as high as 92% in Kuwait, 76% in Pakistan and 59% in Nepal.[7]

There are many factors influencing self-medication like socio-economic factors, life style, and the increased potential to manage certain illnesses through self-care, greater availability of medicinal products, and availability of healthcare and health professionals, exposure to advertisement; education and professional status.[8]

Self-medication has both advantages and disadvantages. Appropriate, self-medication relieves acute problems, time saving, economical, relieves the burden on the heath care professional and hence that they can provide time for more serious ailments requiring more attention. Inappropriate self-medication can result in failure of therapy, adverse drug reactions, side-effects, prolonged suffering, development of bacterial resistance, drug dependence, economic loss, wastage of resources.[9]

Compared to general public many factors influence practice of self-medication among medical students. They have easy access to information from various sources to self-diagnose and self-medicate.[10] As they are future doctors and health prescribers of community, it is important to know their knowledge level regarding different aspects of self-medication.The present study was conducted 100 2nd year final term medical students to assess the knowledge, attitude, and practice regarding the self-medication.

METHODS

This was as a questionnaire-based study conducted after getting approval from the Institution Ethics Committee. A self-developed questionnaire containing both open- and close-ended questions regarding the knowledge, attitude and practice of self-medication was used. Study was done among 100 2nd year final term medical students in "Shivamogga Institute of Medical Sciences," Shivamogga, Karnataka. A brief description on the nature of the study and procedure to complete the questionnaire was explained to students. Consent was obtained before start of the study. The results were expressed by descriptive statistics such as counts and percentages.

RESULTS

The study involved students of average age (years): 19.5±1.5 (Tables 1-15).

DISCUSSION

In our study, students belong to the age group (years) mean±standard deviation (SD) of 19.5±1.5 when compared to similar study done by Thadani et al. where the age group mean±SD (years) was 20.5±0.98. The female partcipants in our study was 57% and male participants were 43%. In Thadani et al. study female participants were 68% and males participants were 32%.[11]

In our study, 60% of the students had knowledge about OTC drugs, when compared with similar study done by Kumari et al. where 38% of individuals had knowledge of OTC drugs.[12] This might be due to high knowledge among students about pharmacology. 25% of the students considered self medication safe and 75% considered it to be unsafe. 60% considered ayurveda drugs as OTC drugs.

Table 1: Sex distribution.

Sex	Percentage
Female	57
Male	43

Table 2: Knowledge about OTC drugs.

OTC drugs	Percentage
Dispensed by the pharmacist on physician order	6.1
Always dispensed by the pharmacist himself	30.6
Procured by the patient himself with out prescription	60.2
Procured from relatives and friends	3.1

OTC: Over the counter

Table 3: Knowledge regarding safety on self-medication.

Is self medication entirely safe	Percentage
Yes	25
No	75

Table 4: Knowledge regarding ayurveda drugs as OTC.

Is Ayurveda drugs considered as OTC	Percentage
Yes	60
No	40

OTC: Over the counter

Table 5: Attitude toward self medication.

Prefer self medication	Percentage
Yes	53
No	47

Table 6: Attitude toward selection of ayurveda/ allopathy drugs for self-medication

Drugs prefered for self medication	Percentage
Allopathy	68
Ayurveda	32

Table 7: Attidude toward reason for preffering self meication.

Reason for preffering selfmedication	Percentage
Physician consultation fee expensive	8
Lack of time to consult	12
No need to consult for simple ailments	72
Unavailibility of the health care profesionals	8

Table 8: Attitude toward suggesting non medical people self-medication.

Do you suggest self-medication for non-medical people	Percentage
Yes	20
No	80

Table 9: Practice of self-medication.

Have you practiced self-medication	Percentage
Yes	66
No	34

Table 10: Condition for which selmidication practised.

Condition for which self-medicated	Percentage
Body ache	3.5
Cold	12.3
Cough	15.8
Fever	28.1
Gastritis	17.5
Headache	10.5
Diarrhea	7
Others	5.4

Table 11: Drugs used for self-medication practise.

Drugs used for self-medication	Percentage
Paracetamol	42.1
Antibiotics (amoxicillin, azithromycin, cefixime)	21.1
Antihistamines	14
Antacids (ranitidine, pantoprazole, omeprazole)	17.5
Analgesics (diclofenac, aceclofenac)	5.3

Table 12: Knowledge regarding drugs for self-medication practice were obtained from.

Came to know about the drug from	Percentage
Previous consultation	82.8
From relatives/friends	10.3
From literature in books	5.2
Advertisements	1.7

Table 13: Symptoms relieved on selfmedication practise.

Did symptoms relieved on self-medication	Percentage
Yes	98.2
No	1.8

Table 14: Appropriateness of the self-medication practice.

Appropriate self-medication	Percentage
Yes	86.0
No	14

Table 15: Experience of adverse effects on self-medication.

Experienced side-effects on self-medication	Percentage
No	91.2
Yes	8.8

In our study 53% prefferd self medication, compared to 79% in a study done by James et al. in Bahrain among 1st year students.[13] This could be due to more knowledge about medicines and easy availibilty of the medicines. 68% in our study preffered alopathy drugs and 32% prefferd ayurveda drgs for self medication.They considered allopathy drugs acts faster and relieve their symptoms compared with ayurveda drugs. 72% students in our study preffered self medication as they considered no need of professional consulataion for the simple ailment every time when compared to a similar study done by Thadani et al. where 43.3% prefferd self medication for the same reason.[11] 20% in our study showed interest in suggesting non-medical people to practise self medication when compared with study done by James et al. where 13.4% individuals suggested self-medication.[13] 47% practiced self-medication in a study done by Sathisha et al. whereas it was 62% in our study. The fever 28.1% was the most common condition for which paracetamol 42.1% was the drug used for self-medication in our study. In Thadani et al. study head ache 41.2%, followed by fever 21.6% was the common conditions and paracetamol 77.3% was used. In our study, earlier consultation were source for self-medication with 88% in comparison with 46.8% in Sathisha et al. study where in the source were from the text books. In our study, 80% of self-medication were appropriate, 98.2% were relieved of symptoms and only 8.8% experienced side-effects.

CONCLUSIONS

Responsible self-medication has to be promoted among both the medical students and the general public. Self-medication creates awareness among the individuals toward maintaining their health. Drugs made available for self-medication must be provided with proper information about use. Both medical students and public has to be educated on the type of illnesses to be self-diagnosed, type of drugs to be self-medicated and when to seek professional advice. It is only then that responsible self-medication prevails to promote health, prevent and treat illnesses. Educating about self-diagnosing illnesses, the drugs for the same and to seek professional advice if needed, is very much important to promote health by practicing self-medication.

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