

IS THE PRACTICE OF SELF MEDICATION MORE PREVALENT AMONG HEALTH SCIENCES STUDENTS? – A COMPARATIVE QUESTIONNAIRE STUDY

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Abstract

Keywords:

Self-medication,
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Background: One of the most relentless problem in the society especially among the health care professionals in developing countries is self-medication. It is defined as obtaining or consuming one or more drugs without a physician's advice either for diagnosis, prescription or surveillance of treatment. The present study was done among students with different educational background to assess the percentage of youngsters who practice self-medication, their attitude and knowledge about the same.

Method: A structured and validated questionnaire was distributed among 300 dental, engineering and paramedical students.

Results: The results were alarming, 292 students out of 300 have taken self-medication, 97% were found to be used to self-medication among dental students, 93% were engineering students and 99% were paramedical students. 41.8% of students believed in self-knowledge.

Conclusion: Educational interventions should be aimed to make the population aware of potential risks and dangers linked to self-medication and strict laws to be enforced to prevent over counter drugs.

Introduction

According to William Osler, a great feature which distinguishes man from animals is the desire to take medicine. Self-medication has become an integral part of self-care and is considered as primary public health resource in health care system. It is defined as consumption of the medicinal products for treatment of diseases without a prescription.² The medicines for self-medication are called as 'nonprescription' or 'over the counter'(OTC) and are available without a doctor's prescription from the pharmacies.³ It includes self-medication, non-drug self-treatment, social support in illness and first aid in everyday life.⁴ Easy accessibility to OTC, urge of self care, feeling of sympathy towards family members in sickness, poverty and advertising media seems to be the reasons for the growing trend of self-medication.^{3,5} The practice of self-medication is promoted by WHO for effective and quick relief of symptoms in rural and remote areas where health care services are understaffed and inaccessible.³ There are several risks/dangers of self-medication which may include incorrect self-diagnosis, masking of an underlying severe health condition, rare but severe side effects, failure to recognize contraindications, potential drug-drug and drug-food interactions, inadequate dosage, risk of dependence or abuse. At the community level this improper self-medication produces an increment in drug induced disease leading to increased public health expenditure.⁶ The present study was done among students with different educational background to assess the percentage of youngsters who practice self-medication, their attitude and knowledge about the same.

Materials and methods

A Questionnaire study was conducted among 300 undergraduate students of different educational backgrounds (Dental, Engineering, Nursing, Pharmacy and Physiotherapy). The students were divided in to 3 groups as A, B, C. Group A included 100 dental students. Group B included 100 engineering students. Group C included 100 nursing, pharmacy and physiotherapy students together. Inclusion criteria for group A and C is after completion of their pharmacological subject. All the participants were given validated questionnaire to collect the information after

taking ethical committee clearance from the respective institutions. The questionnaire was structured into 3 sections; Section A consisted of questions regarding the self-medication behavior's, Section B consisted of knowledge about antibiotics, analgesics and their adverse effects, and part C consisted of questions regarding age, gender, and year of study. The students were briefed about the aims, objectives and the procedure of completing the questionnaire. The questionnaires were assessed for their completeness and only the completed questionnaires were considered for the final analysis. The collected data was analysed using SPSS (statistical packages for social sciences) version 11.5.

Results

A total of 300 students were assessed regarding attitude towards self-medication and its practice. Out of 300 participants, 251(83.1%) were females and 51(16.9%) were males. 86.8% were in the age group of 19-23 and 13.2% were in the group of 24-30. The prevalence of self-medication in the dental, engineering and paramedical were 97%, 93% and 99% respectively.

The majority of students self-medicating believed in their knowledge (41.8%), followed by treating it as minor issue which does not warrant a physician consult (30.1%). The most common complaint for students to take self-medication was fever (58.2%) followed by headache(40.1%), running nose (28.1%). Antibiotics were the most common class of drugs self-medicated by majority of the participants (53.7%) followed by analgesics (51.3%) and antipyretics (29.2%). [table 1].

Most of the students believed in their own experience (49.3%) for selecting the drug for self-medication followed by previous doctor's prescription (31.9%) and opinion from the family members (21.1%). [graph 1]. The dosage for self-medication known by most of the students was by previous consultation of a doctor (33.2%) followed by consultation of a pharmacist (26.5%) or by checking the package insert (22.1%). 47.7% of the students stopped taking the medication after the symptoms disappeared. Adverse reactions were reported in 19.9% of them taking self-medication out of which 35.0% of them consulted a doctor for treatment of adverse reactions and 30% of them stopped the drug. Regarding the attitude 65.1% of the students have opined that self-medication is an acceptable practice and 19.8% of them perceived that it was a good practice.

Discussion

The International Pharmaceutical Federation defines self-medication as the use of non-prescription medicines by people on their own initiative. In developing countries many people are not only using non-prescription drugs but also prescribed drugs, as self-medication products without supervision.⁷ The increase in self-care may be due to numerous factors i.e., socioeconomic factors, life style, easy access to drugs, minor ailment, lack of escort and lack of trust in prescribing doctor.³ There are both positives and negatives with the use of self-medication. One of the major problems related to self-medication are increased resistance to pathogens, adverse reactions and prolonged suffering. Antimicrobial resistance has become a current problem worldwide particularly in developing countries where antibiotics are available without prescription.⁹ To avoid these effects due to self-medication world health organization should produce supporting information with the medicinal product regarding how to take the medicine, possible side-effects, monitoring, interactions, warnings, duration of use, etc.⁶

The prevalence of self-medication is 97% among dental students, 93% among engineering and 97% among paramedical students according to the current study, were as the prevalence of self-medication among public was 81.54%, in a study conducted by Harlalka et al in eastern India¹⁰ which shows people with medical background have greater tendency towards self-medication. People with medical background tend to self-medicate more than the people with non-medical background.

An individual has numerous illnesses for intake of self prescribed medicines, among them according to the current study, most common illness for self-medication was fever followed by headache and running nose. This is in accordance with the study of Nithin kumar et al and Abay and Amelo.^{1,8}

The most common reason for the practice of self-medication in the current study was self-knowledge through various medias, were as lack of time and text books were the most common reason for self medication in studies done by Mohamed saleem et al and a study in India and Ethiopia respectively.

In the ocean of available drugs, antibiotics were the most common class of drug used for self-medication in the current study. Were as analgesics were the most common group of drugs used for self-medication according to other similar studies in India.^{1, 3, 10}

In the present study 65.1% of the students have reported that self-medication was an acceptable practice. But there is always a risk associated with taking self-medication in terms of resistance as many of the people stop the medication immediately after the symptoms disappear without continuing the course of the medication. 47.7% of students in our study have shown to do the same.

The irrational use of drugs by self-medication leads to many dangerous health hazards. Amongst the dangers of self-medication we may quote incorrect self-diagnosis; which may mask the underlying severe health condition and consequent failure to seek medical advice promptly. Other severe and rare side effects include failure to recognize contraindications and potential drug-drug interactions, incorrect route or manner of administration, inadequate dosage, risk of dependence or abuse and incorrect choice of therapy. At the community level, improper self-medication increases drug induced disease with consequent increase in public health expenditure.

Hence, interventions should educate people on the importance of observing instructions on dosage, indications, duration of treatment and necessity of consulting a physician in case symptoms persist. This understanding should be improved by health care professionals towards safe use of medications.

Conclusion

Self-medication invites its own plethora of silent complications. Being aware of the adverse effects, the personnel from medical background should refrain from self-medication and also spread a word about the harmful implications to the others as their social responsibility. Although OTC drugs are regarded as totally safe by most of the population, there is always some degree of danger to the consumer. So educational intervention should be aimed to make the population conscious of potential risks and dangers linked to self-medication. Females especially, should be educated and made aware about the implications of self-medication. The study findings are based on a single institution so cannot be generalized per se. More multicentric studies need to be carried out among different institutions and health care professionals in India in a larger population to understand various factors.

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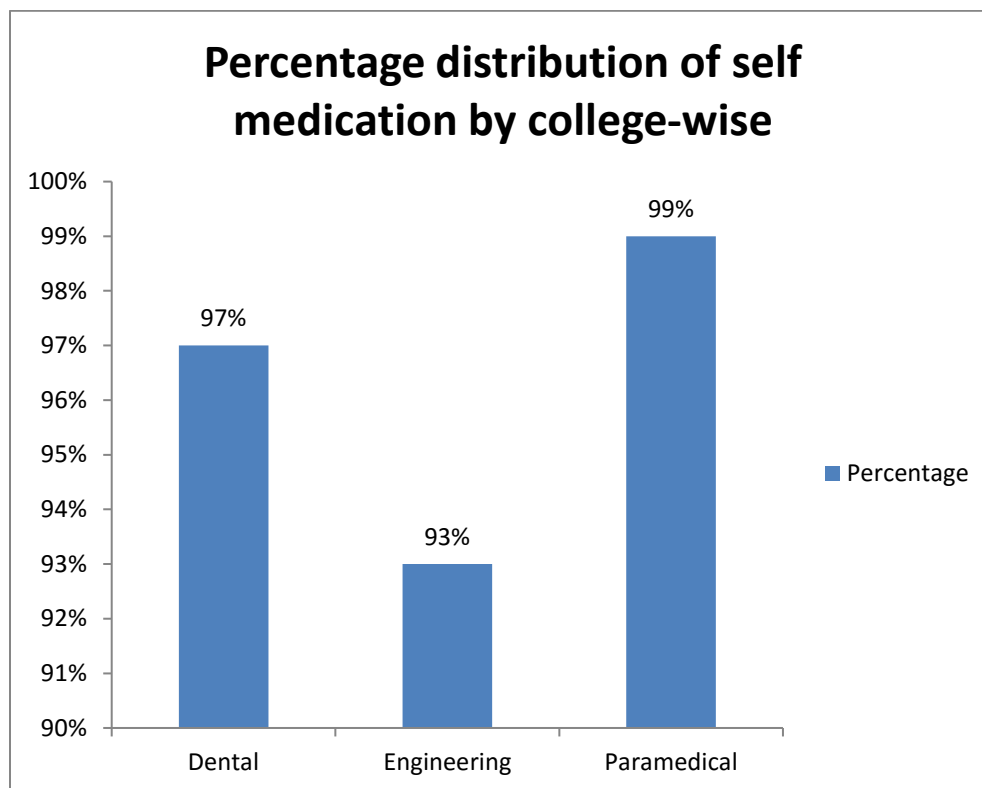


Table 1: showing the percentage of people taking self-medication for various reasons.

Reason	No of subjects	Percentage
Fever	174	58.2%
Head ache	120	40.1%
Running nose	84	28.1%
Sore throat	61	20.4%
Diarrhea	59	19.7%
Generalized aches and pains	51	17.1%
Gastric pain	47	15.8%
Nasal congestion	40	13.4%
Vomiting	34	11.4%
Tooth ache	20	6.7%
Any other	19	6.4%