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Research Article

Self Medication among Second Year Medical Students in a Teaching Hospital

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Abstract: The study was aimed at assessing self medication among second year medical students using a questionnaire. Of total of 200 students, 94(47 %) practiced self medication at least once in the last six months prior to interview. Analgesics were most commonly used class of drugs, and antibiotics were least used class of drugs. Paracetamol was most frequently used drug. The two important factors encouraged self medication includes minor illness and prior experience with drug. The majority of students supported self medication practices. Text books were top reported source of drug information. As the prevalence of self medication is high which could be because of their medical background, hence students need to be counselled about advantages and limitations of self medication.
Keywords: Self medication, Drugs, Questionnaire

INTRODUCTION

Drugs have potential to produce desirable and undesirable effects. Self medication is defined as "The selection and use of medicines by individuals to treat self recognized illnesses or symptoms" [1]. It is widely practiced both in developed and developing countries and contributes to 17 to 26 % pharmaceutical market share in European countries [1].

The self-medication when practiced in a responsible manner is beneficial by reducing the direct and indirect of cost of health care [2]. The following conditions were required for realization of these benefits: the drugs used are those indicated for conditions that are self recognizable; the user should know possible side effects as well as monitoring of these side effects, likely interaction with other drugs, dosage, frequency and duration of course of the drugs[3]. Inappropriate self medication results in irrational use of drugs, wastage of resources, increased risk of adverse reactions and prolonged suffering [4]. Irrational usage of antibiotics led to the emergence of resistance pathogens worldwide [5].

Unlike other population, medical students are potential to use self medication because their medical knowledge and easy access to drugs. The purpose of present study is to evaluate self medication among second year undergraduate medical students of SSIMS & RC, Davangere.

MATERIALS AND METHODS

This questionnaire based study was conducted on second year medical students of S.S. Institute of medical sciences, Davangere. Initially pilot study was conducted to standardize the questionnaire. They were asked about details of self medication during the six months period preceding the interview. The participants were involved in the study after taking informed consent. The ethical committee approval was taken prior to the study.

RESULTS

Two hundred second year medicals students were interviewed for the study. Among them 94(47 %) had practiced self-medication at least once during six months preceding the study. The most common morbidity for self medication was fever (48.93 %) followed by running nose, bodyache, gastritis, and cough.

Analgesics were most frequently used drug group for self-medication. The most commonly used drug for self medication was paracetamol (53.19 %) followed by cetrizine, ranitidine and pantoprazole. Among the participants who practiced self medication, 58(61.7%) mentioned that they had illness less than 24 hours prior

to self medication. Approximately 29.78% and 2.12% of participants involved in self medication had illness between 24 to 72 hours and beyond 7 days prior to self medication respectively.

Of 94 students who were practiced self medications, 42(44.68%) and 21(22.34%) participants were of opinion that minor illness and prior experiences with drug encourages them for self medication. The text books were most common source of drug information. Among 94 students who were practiced self medications, 80(85 %) were aware of adverse effects of drugs for the drug used for self medications. They were aware of possible interaction between alcohol, smoking, chronic diseases and drugs. None of the participants used drugs of alternative medicine for self medication

Attitudes of participants towards self medication were also analyzed. Of 106 students who did not practice self medication, 80(75%) expressed their support for self medication. Among 94 students who practiced self medication, 70(74 %) agreed on the practice of self medication.

Table 1: Drugs used for self medication

Drugs	Frequency (%)
Paracetamol	50(53.19)
Cetrizine	15(15.95)
Ranitidine	5(5.3)
Pantoprazole	5(5.3)
Ofloxacin	4(4.25)
Cough syrups	3(3.19)
Others*	12(12.76)

*Amoxicillin, Diclofenac, Ciprofloxacin and Tinidazole, Ibuprofen, Metronidazole, Aspirin, Alprazolam

Table 2: Duration of illness prior to self medication

Duration	Frequency
Less than 24 hours	58(61.7)
24 hours to 72 hours	28(29.78)
3 days to 7 days	6(6.38)
Beyond 7 days	2(2.12)

Table 3: Factors encouraging self-medication

Factors	Number of participants
Time saving	7(7.44)
Cost saving	18(19.14)
Emergency	6(6.38)
Prior experiences with drug	21(22.34)
Minor illness	42(44.68)

Table 4: Frequency of reported symptoms

Disease	Frequency
Fever	46(48.93)
Running nose	15(15.95)
Bodyache	9(9.57)
Gastritis	7(7.44)
Cough	7(7.44)
Headache	5(5.31)
Others*	5(5.31)

*Throat infections, diarrhoea, allergy

Table 5: Sources of drugs

Source	Frequency (%)
Purchased from pharmacy without prescription	72(76.59)
Obtained from friends	8(8.51)
Drug left from prior use	11(11.7)
Medical representatives	3(3.19)

Table 6: Sources of drug information

Source	Frequency (%)
Text book	44(46.8)
Advisement	6(6.38)
Advice by seniors	38(40.42)
Advice by doctors without prescription	6(6.38)

DISCUSSION

Self-medication refers to using drugs that have not been prescribed, recommended or controlled by a licensed healthcare specialist [6]. Among 200 participants interviewed, 94(47 %) were taken self medication during specified period. A previous study conducted on medical pharmacy and health science students found that 38 % practiced self medication [7]. Previous studies revealed that self medication is influenced by many factors such as education, family, society, law, availability of drugs and exposure to advertisements [8, 9]. A high level of education and professional status has been mentioned as predictive factor for self medication [10]. The high prevalence of self medication among study participants may be because of medical knowledge and availability to drugs.

Text books (46.8%) were major source of drug information for self medication. This shows impact of educational status on self medication. In contrast a study conducted in selected rural and urban areas of Haryana found that source of drug information for 24 % drug consumers were recommendations by friends, relatives, who have no medical knowledge [1].

The factors influencing self medication mentioned in the literature are minor illness, previous experience of treating similar illness, economic considerations and a lack of availability of healthcare personnel [2]. In our study, fever (48.93 %) was the most common symptoms that led self medication. Similarly the most common symptoms reported in another study conducted on pharmacy and health science students were fever (25 %) [7].

Previous studies have shown that frequently used category of drugs in self medications were analgesics, antipyretics and antimicrobial agents [1, 11, 12]. In present study, analgesics were most commonly used class of drugs and antibiotics were least used class of drugs. Paracetamol was most frequently used drug. The fixed drug combination of ciprofloxacin and tinidazole was found to be used by few students. There is a report that usage of such combination exposes individuals to higher risks of adverse drug reactions and also increases chances of drug resistance. There is little evidence to substantiate use of this combination therapy routinely [13]. The major factors encouraging participants for self medication include minor illness and prior experience with drug and results were comparable to previous study conducted at Ethiopia [7].

CONCLUSION

The 47 % of second year medical students practiced self medication at least once in last six months prior to the study. Paracetamol was most commonly used drug. The high prevalence of self medication could be because of their medical background. The counselling is required to advice the students about advantages and limitations of self medication

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