

**PREFERRED SYSTEM OF MEDICINE AND REASONS OF SELF MEDICATION AMONG COLLEGE STUDENTS IN MALWA REGION OF PUNJAB**Gupta Vikas<sup>1\*</sup>, Bansal Parveen<sup>2</sup>, Manhas Rajeev<sup>3</sup>, Singh Zora<sup>4</sup>, Ghaiye Pankaj<sup>5</sup><sup>1</sup> University Centre of Excellence in Research, Baba Farid University of Health Sciences, Faridkot, India<sup>2</sup> Department of Biochemistry, PGIMER, Chandigarh, India<sup>3</sup> University Library and Informatics Division, BFUHS, Faridkot, India<sup>4</sup> Department of Anatomy, GGSMCH, Faridkot, India<sup>5</sup> Akal College of Pharmacy and Technical Education, Mastuana Sahib, Sangrur, India\*Corresponding Author's: E-mail: [vikas\\_4308@rediffmail.com](mailto:vikas_4308@rediffmail.com)

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**ABSTRACT**

The objective of this study was to describe and examine the system of medicine used by college students, awareness, reasons behind self medication, drug information resources, danger findings and knowledge of drug profile. Samples of 3001 young students belonging to Malwa region of Punjab were randomly selected. An inclusion criterion was 16-30 years. A total of 40 students were excluded in accordance with the exclusion criteria like incomplete information. About 55.18% students had a positive trust in allopathic medicines, 58.91% students learn self medication from doctors prescriptions provided during their prior illness. 50.08 % students were aware about drug interaction. The results are based on feed backs which were provided by respondents included in study. The results show that percentage of self medication might change along with locality and region. The prevalence of self medication among college students in Malwa region of Punjab is high. This descriptive survey shows that medical students had good knowledge about appropriate self medication than non-medical students. A number of students consult parents, books, friends and advertisements for drug information.

Key words: Self medication, College students, Medicines, Punjab

**INTRODUCTION**

Self medication is the use of nonprescription medicines by people through using their own initiative<sup>1</sup>. It has also been defined as obtaining and consuming medication without professional supervision, which comprises of acquiring medicines without a prescription, purchasing drugs by resubmitting/ reutilizing an old prescription, taking medicines on advice of relative or others, or consuming leftover medicines already available at home<sup>2</sup>. Some government bodies are encouraging self-care of minor illnesses, including self-medication<sup>3</sup>. Patient empowerment is viewed as a positive step in the development of the relationship between patient and healthcare provider and is considered as an important health policy concept<sup>4</sup>. In several studies it has been found that inappropriate self-medication results in wastage of resources, increases resistance of pathogens and generally entails serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence<sup>5</sup>. On the other hand, if done appropriately, self-medication can readily relieve acute medical problems, can save the time spent in waiting to see a doctor, may be economical and can even save lives in acute conditions<sup>6</sup>. It is now accepted that self-care in the form of responsible self-medication can be beneficial for patients, healthcare providers, the pharmaceutical industry and governments. The World Health Organization (WHO) has also pointed out that responsible self-medication can help prevent and treat ailments that do not require medical consultation and provides a cheaper alternative for treating common ill-nesses<sup>7</sup>. However, it is also recognized that self-medication must be accompanied by appropriate health in-formation<sup>8</sup>. Studies on self-medication are influenced by many factors, such as education, family,

society, law, availability of drugs and exposure to advertisements<sup>9</sup>. A high level of education and professional status has been mentioned as predictive factors for self-medication<sup>10</sup>. The reasons for self-medication mentioned in the literature are mild illness, previous experience of treating similar illness, economic considerations and a lack of availability of healthcare personnel. The most common medications used for self-medication are analgesics and antimicrobials<sup>11</sup>.

The present study was undertaken to evaluate the awareness of danger finding, source of drug information, trust in medicinal system and reasons behind self medication.

**SUBJECTS AND METHODS**

This study was a questionnaire-based survey approved by the Chairman of University Research and Development Committee. A self developed, pre-validated questionnaire consisting of both open-ended and closed-ended items were used. The study population comprised college students of Malwa region of Punjab. All campus students who were willing to participate in the study were enrolled. A brief seminar was given about the nature of study, and the procedure of completing the questionnaire was explained. Agreeable participants completed the questionnaire in the college campus.

Samples of 3001 students were selected randomly from thirty institutions, 16 non-medical institutes and 14 medical institutes of Malwa region of Punjab. The inclusion criteria for the selection of students was 16 years and above. Out of all 40 students were excluded in

accordance with the exclusion criteria like incomplete information. The questionnaire consisted of questions on type of medicine system, reasons of self medication, awareness of danger finding and source of drug information, The results are based upon the data obtained from 2961 (98.66%) students. The prevalence of self medication was reported as percentages. The survey was descriptive and data was summarized as counts and percentages, some of the questions had multiple options to choose from, therefore the sum total of percentage is not always 100%.

## RESULTS

### Baseline characteristics of participants

All the students (n=3001) responded to the questionnaires, of whom 40 were excluded in accordance with the exclusion criteria like incomplete information. Remaining 2961 (98.66%) student's questionnaires were considered for evaluation. The non-medical students (n=1661) and medical students (n=1340) responded to the questionnaires, of whom 32 and 8 respectively were excluded in accordance with the exclusion criteria like incomplete information. Remaining 1629(98.07%) and 1332(99.40%) student's questionnaires were considered for evaluation.

In non medical institutes 754 (45.39%) males and 907 (55.61%) females participated in the study while in medical institutes 309 (23.06%) males and 1031 (76.94%) females participated in the study.

### Trust in medicine system

Most of the students had a trust in Allopathic medicine system (55.18%) and the percentage of students favoring Homeopathy and Ayurvedic system was 27.86% and 23.37% respectively. Students also had trust in other system of medicine like Naturopathy, Chinese system of medicine, Siddha system of medicine, Acupuncture (4.74%) etc. The division of non-medical and medical students as per trust in different system of medicines has been listed (Table1)

Table 1: Trust in medicine system

Trust in medicine system	Non-Medical	Medical
	Respondents %	Respondents %
Allopathic	49.11	61.26
Homeopathic	28.85	26.88
Ayurvedic	23.69	23.05
Unani	0.61	0.30
Others	5.59	3.90

### Prevalent reasons of self-medication

The non-medical and medical respondents perceived several advantages of self medication were listed in Table 2. The most important reasons given by subjects were quick relief (39.93%), no need to visit doctor for minor illness (33.18%), time saving (21.70%), learning opportunity (10.42%) ,economical cure (10.04%) and unavailability of doctor in about 9.5 % cases.

Table 2: Prevalent reasons of self-medication

Reasons	Non-Medical	Medical
	Respondents %	Respondents %
Time Saving	17.74	25.67
Economical	9.88	10.21
Quick Relief	37.45	42.42
Learning opportunity	7.49	13.36
Ease and convenience	4.73	10.58
Crowd avoidance	5.28	5.55
Unavailability of doctor	7.98	11.04
No need to visit doctor for minor illness	29.59	36.78

### Drug information

The data reveals that 58.91% students learned self medication from doctor's prescriptions provided during their prior illness. The information from parents, books,

friends and advertisements comprised 19.64%, 12.51%, 8.50% and 6.34% respectively guided the students for self medication. The sources of information about drugs used in self medication by non-medical and medical students were listed in Table 3.

Table 3: Source of information about drugs used in self medication by students

Source of Drug information	Non-Medical	Medical
	Respondents %	Respondents %
Doctor	53.04	64.79
Friends	9.58	7.43
Parents	26.89	12.39
Pharmacist	3.07	3.53
Books	6.63	18.39
Advertisements	7.06	5.63
Others	3.62	5.40

### Danger findings

From the data 1.24% students committed that they were alcoholic and only 0.59% were smokers. About 2.27% students were having chronic problems which were non communicable diseases. Awareness about drug interaction with alcohol, smoking, chronic diseases and others with self medicated medicines was 50.08 % and knowledge about profile of the drug

which was taken up by self medication practice was 46.31%. Knowledge about danger finding in non-medical and medical students has been listed in Table 4.

Table 4: Dangers finding that might be dangerous in self medications

Dangers finding	Non-Medical	Medical
	Respondents %	Respondents %
Alcoholics	1.29	1.20
Smokers	0.37	0.82
Chronic Diseases	2.45	2.10
Awareness about drug interactions	43.40	56.76
Knowledge of drug profiles	32.72	59.91

## DISCUSSION

This type of study, using a self administered questionnaire, is largely dependent upon information given by respondents. Although students were encouraged to complete the questionnaire independently, mutual influence between pupils could not be entirely ruled out. However, given the high level of response, the results should closely approximate the behavior of the adolescent students in Malwa region of Punjab. The pharmacist's role is mainly seen as that of a drug salesman rather than that of a healthcare provider. Patient education and awareness campaigns are necessary to promote the role of the pharmacist in India. Students with a previous experience and with mild illness were more likely to practice self medication. This has implications, because many diseases have similar symptoms and a person using previous experience may be exposed to the dangers of misdiagnosis and consequently wrong treatment.

Out of 2961 respondents medical college respondent had good knowledge than non medical college respondent about profile of the drug which was taken up by self medication practice. They were aware of the dose of drug, duration of therapy, toxic dose of drug, active constituents, indications and side effects of commonly used medicine. Major reasons of self medication at student level were quick relief, no need advice from prescriber for minor illness, time saving, learning opportunity and economical etc. Most of the respondent has positive attitude in self medication in minor illness. However, minor illness

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symptoms may cause major illness if not diagnosed properly.

## CONCLUSION:

This descriptive survey shows that the majority of students had a poor knowledge about appropriate self-medication while the knowledge of the benefits and risks was not adequate. Thus, to avoid or minimize the dangers of self medication, firstly the students should be educated about the dangers of indiscriminate use of drugs, secondly, the drug authorities must insist on drugs being supplied by the chemist only on a valid prescription, thirdly, a proper statutory drug control must be implemented, rationally restricting on the availability of drugs to the public. The authors also think that lack of good health services at study centers is also one of the prevalent reasons of self medication. At the same time lack of sufficient money to go and consult to doctor may be another reason for self medication however the data results are contrary to the presumed results. The above three measures would definitely reduce the incidence of drug-related misfortunes and help in maintaining good health of the individual and society also.

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