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Knowledge, Attitude and Practice of self medication among undergraduate medical students of Punjab

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Abstract

Backgrounds: Self medication involves the use of non-prescription medicines by people on their own initiative, resubmitting old prescriptions to purchase medicines repeatedly or sharing medicines with members of one's social circle. Starting from the presupposition that no pharmacologically active substance is innocuous to the body, self-medication could be prejudicial to individual and collective health. This study was designed to assess the pattern and prevalence of self medication among undergraduate medical students of some medical colleges of Punjab especially since the patterns keep changing every year. **Methods and Materials:** It is a prospective and descriptive cross-sectional study conducted on 403 undergraduate medical students from various medical and nursing colleges across Punjab, using a pre-formed detailed questionnaire. **Result:** The ages of study sample ranged from 17 to 23 years of age with the ratio of male:female population being 140:263. Out of 403 students, 40.6 % reported self medication over the given period of time, out of which 33.12 % were habitual users. The most common reason for preferring self-medication included prior experience (34.21%) followed by self confidence about the knowledge of drug (28.32 %) and for quick relief (26.81 %). The prevalence of self medication practices was highest amongst the 3rd year students and least amongst the 1st year students which can be attributed to the the fact that 40.42 % of students reported an increase in self medication after studying pharmacology in 2nd prof. The percentage of students suffering from a congenital or a pre-existing illness was a meagre 7 %. The most common illnesses prompting self medication included common cold(49.83 %) followed closely by fever (33.72 %) and headache(19.31 %). Antipyretics (18.62 %) and analgesics (46.14%) are the most common self-medicated drugs with vitamins(15.81 %), native herbs(9.64 %) and steroids(5.4 %) being the less common ones. Old prescriptions (42.41 %) and pharmacist(24.82 %) were the most common source of information. Regarding previous knowledge about the route, dose, half-life and interactions of various drugs, 66.5 %, 56.8%, 21.3 % and 23.8 % students were noted respectively.Percentage of students who reported side-effects was 48.3 %. **Conclusion:** Self-medication is highly prevalent amongst undergraduate medical students which assumes special significance since their attitude towards pharmacotherapy can have an impact on how they prescribe as future physicians. There is a paucity of literature on the same and thus a need to spread awareness regarding the dangers involved.

Keywords: Self medication, Side effects, Awareness, Drugs, Paucity of literature.

INTRODUCTION

Self medication involves the use of non-prescription medicines by people on their own initiative, resubmitting old prescriptions to purchase medicines repeatedly or sharing medicines with members of one's social circle. It is a norm for us to casually throw in names of antibiotics and other self-medicated drugs from our limited capacity or knowledge. The practice of self medication is widely prevalent worldwide, especially in developing countries like India where many drugs are dispensed over-the-counter without prescription [1] Without realizing the repercussions of excess use, people often pop pills for even minor ailments. Irrational use of these drugs causes increased microbial resistance, wastage of resources, masked diagnosis, use of excessive drug dosage and can also lead to drug dependence. On the contrary, if used appropriately, self medication can be time saving, economical and relieves the burden on health professionals, giving them more time to heal major ailments. Starting from the presupposition that no pharmacologically active substance is innocuous to the body, self-medication could be prejudicial to individual and collective health.

Compared to general public, there are many factors that influence practice of self medication among medical students like easy availability of drugs, advertising of drug manufacturers, previous experiences with symptoms or disease [1], self confidence about accurate drug knowledge, home-kept prescription

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drugs [2] and easy access to information. Since they are future physicians, it is important that the various patterns of self medication be studied in them. Although many studies have been done previously on this subject, yet very less have been conducted in Punjab. Also the patterns of self-medication keep changing over the years. Keeping this in mind, this study was conducted across various medical colleges of Punjab to assess the knowledge, attitude and practices of self medication amongst undergraduate medical students.

METHODS AND MATERIALS

Setting and Sample

It is a prospective and descriptive cross-sectional study conducted on 403 undergraduate medical students from various medical and nursing colleges across Punjab, using a pre-formed validated and structured questionnaire. Informed consent was taken and students were interviewed over a time span of three months. Ethics committee clearance was obtained.

Survey Instrument

Randomly selected consenting participants were asked to fill a two page 17 items self structured questionnaire. It was first administered to 10 students of our institution and pilot tested. Suitable modifications were then made before finalizing it for the study. The questionnaire contained items to look for information regarding demography, prevalence, commonly self medicated drugs and patterns of self medications. Students were assured about the anonymity of their answers. Since knowledge of drugs evolves as we grow, the sample population included students of different semesters.

Data Analysis

Data was analysed using Microsoft Excel and the results were presented using counts and percentages. Some questions being multiple choice, sum of percentages was not always 100%.

RESULTS

The present study was carried out among 403 students and the ages of study sample ranged from 17 to 23 years of age, of which 140 (34.7%) were male and 263(65.3%) were female. (Figure 1). Out of 403 students, 40.6 % (n=163) reported self medication over the given period of time, (Figure 2) out of which 33.1 % (n=54) were habitual users. The percentage of students suffering from a congenital or a pre-existing illness was a meagre 7 % (n=28) (Figure 3). The prevalence of self medication varied amongst different year students with the prevalence increasing from first to final year as depicted in the (Table 1). This can be attributed to the fact that there is increased knowledge of medicines in the final year, especially with the introduction of pharmacology as a subject in second year.

Table 1: Distribution of medical students based on semester of Mbbs*

Semester of SM†	Yes to SM (%)
First	15 (3.7)
Second	37 (9.2)
Third	47 (11.7)
Fourth	60 (14.9)
Fifth	57 (14.1)

* Mbbs is Bachelors in Medicine and Bachelors in Surgery
† SM is self medication

The various reasons for resorting to self medication have been depicted in (Figure 4). Prior experience (34.2%) about the drug and self confidence (28.3%) about drug knowledge in medical students are the most common reasons. Common cold (49.8%) is the most common illness for which drugs are taken for self medication and in females menses (21.3%) are also a common cause of self medication (Figure 5).

Antipyretics (18.6 %) and analgesics (46.1%) were the most common self-medicated drugs with vitamins (15.8 %), native herbs (9.6 %) and steroids (5.4%) being the less common ones (Figure 6). 46.1% students resorted to taking antibiotics, of which 61.8% admitted to deliberately changing dose themselves during the course of treatment and 44% switched to a different antibiotic. Old prescriptions (42.4%) and pharmacist (24.8 %) were the most common sources of information as depicted in (Figure 7).

Regarding previous knowledge about the route, dose, half-life and interactions of various drugs 66.5%, 56.8%, 21.3 % and 23.8 % students were noted respectively. Percentage of students who reported side-effects was 48.3 % which is considerably large and needs to be pondered on.

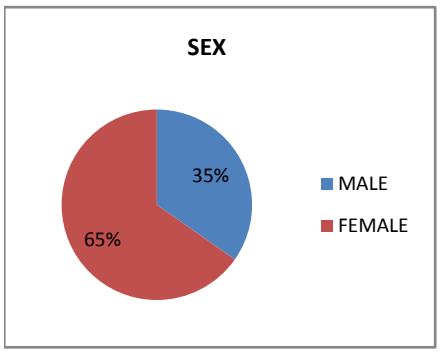

Figure 1: Distribution of students based on gender

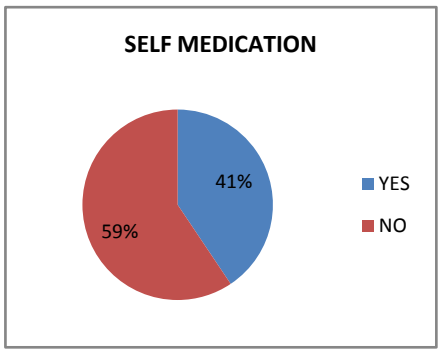

Figure 2: Pie chart depicting distribution of students resorting to self medication

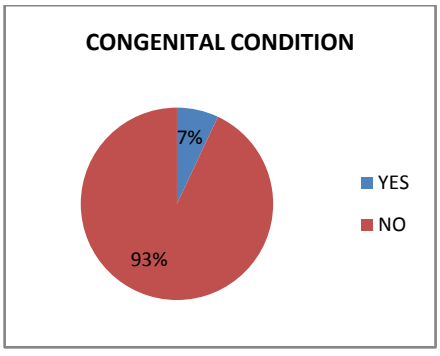

Figure 3: Pie chart depicting distribution of students having a pre-congenital condition

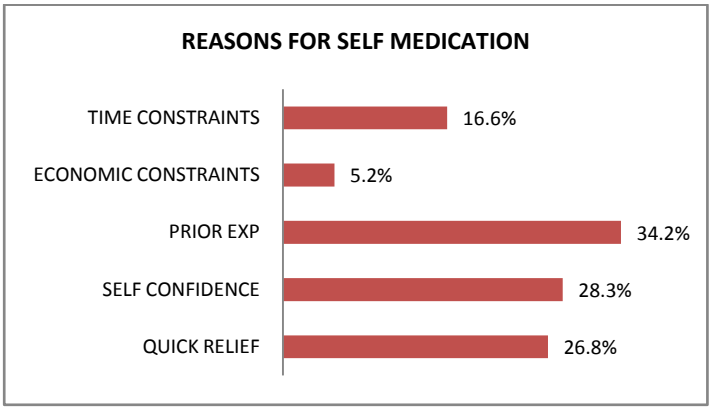

Figure 4: Graph depicting the various reasons for which self medication is done

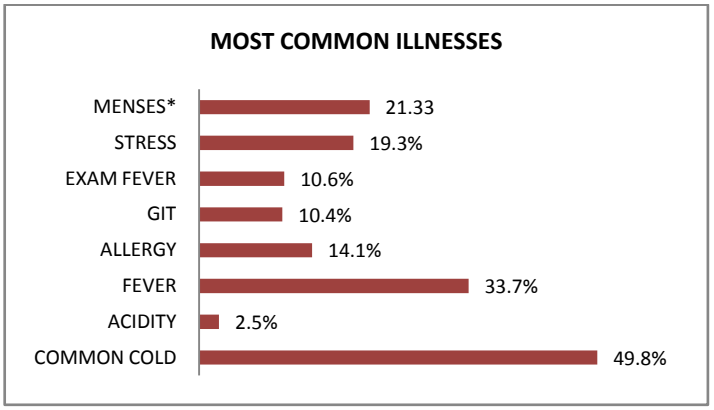

Figure 5: Graph depicting the most common illnesses for which self medication is done. * only for females

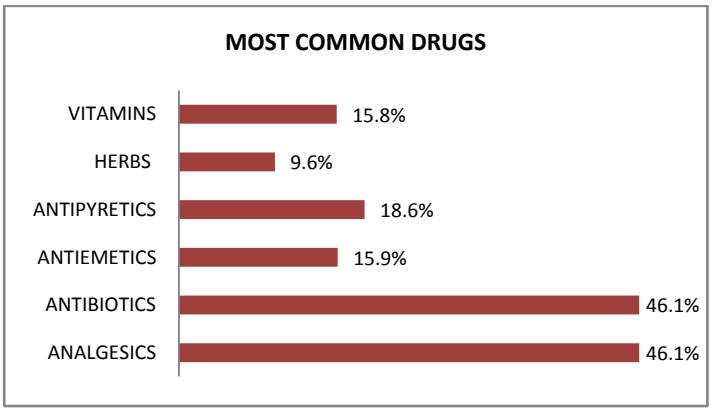

Figure 6: Graph depicting the most common drugs for which self medication is done

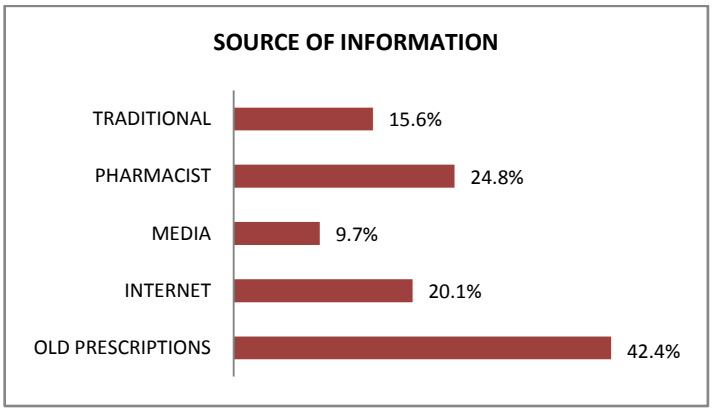

Figure 7: Graph depicting the sources of drug information for self medication

DISCUSSION

In this study, the prevalence rate of self-medication was 40.3% which is slightly lower than the previous studies which reported different prevalence figures ranging from 43.2% to 91% [3-7] indicating an increase in awareness amongst students about the side-effects involved. There is a higher female predilection for self medication which is in concordance with the previous works [7-,9] which could be due to a greater amount of strain in their lives as well as pain due to menstrual cramps. Majority of students follow allopathic system of medicine followed by homeopathic and ayurvedic, which might be due to easy availability and a belief that allopathic acts faster. However, a significant usage of traditional medication indicates a belief in those systems since childhood and earlier prescriptions available for the same ailments. The high use of antibiotics in self-medication, without proper diagnosis of the disease leads to increased morbidity and to the emergence of new multiresistant strains of microbes or causative organisms,[10] which are costly and difficult to treat. The high rate of use can be attributed to the high rate of infections as a result of overcrowding in classes or hallways. A high percentage of students had knowledge about the route, dose etc of drugs, yet there is tendency towards inappropriate self-medication.

Limitations

The study was based on self-reported data about self-medication in the preceding three months thus prone to recall bias. Mutual influence between the students during filling the questionnaire could not be entirely ruled out. A longer timeframe could have been considered.

CONCLUSION

The practice of self medication is prevalent amongst medical students even with adequate knowledge about the consequences. The study provided baseline data about practice and prevalence of self-medication. Monitoring of sale of drugs with side-effects must be implemented and restrictions be put amongst stakeholders and pharmacists. Responsible self-medication must be promoted among medical students and counselling be done against chronic habitual self medication practices.

Conflict of Interest

The authors have no conflict of interest.

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REFERENCES

1. Hussain S, Malik F, Hameed A, Ahmad S, Riaz H. Exploring health-seeking Behavior, medicine use and self medication in urban and rural Pakistan. Southern Med Review 2010; 3(2):32-34.
2. Klemenc-Ketis Z, Kersnik J. Sources and predictors of home-kept prescription drugs. Int J Clin Pharmacol Ther. 2010; 48(11):705-707.
3. James H, Handu SS, Khaja KA, Sequeira RP. Influence of medical training on self-medication by students. Int J Clin Pharmacol Ther 2008; 46(1):23-29.

4. Girish HO, Divya HM, Prabhakaran S, Venugopalan PP, Koppad R, Acharya A. A cross-sectional study on self-medication pattern among medical students at Kannur, North Kerala. J Evolution of Medical and Dental Sciences. 2013; 2(45):8693-8700.
5. Patel PM, Prajapati AK, Ganguly B, Gajjar BM. Study on impact of pharmacology teaching on knowledge, attitude and practice on self-medication among medical students. Int J Med Sci Public Health.2013; 2(2):181-186.
6. Kumari R, Kiran, Kumar D, Bahl R, Gupta R. Study of knowledge and practices of self-medication among medical students at Jammu. J Med Sci 2012; 15(2):141-144.
7. Banerjee I, Bhadury T. Self-medication practice among undergraduate medical students in a tertiary care medical college,West Bengal. J Postgrad Med. 2012; 58(2):127-131.
8. Kumar N, Kanchan T, Unnikrishnan, Rekha T, Mithra P, Kulkarni V, et al. Perceptions and practices of self-medication among medical students in coastal South India. PLoS One. 2013; 8(8):e72247.
9. Pandya RN, Jhaveri KS, Vyas FI, Patel VJ. Prevalence, pattern and perceptions of self-medication in medical students. Int J Basic Clin Pharmacol. 2013; 2(3):275-280
10. Deshpande SG, Tiwari R. Self medication:A growing concern. Indian J Med Sci. 1997; 51(3):93-96.