EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH
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SELF MEDICATION PRACTICES AMONG UNDERGRADUATE MEDICAL STUDENTS OF GOVERNMENT MEDICAL, SRINAGAR – A QUESTIONNAIRE- BASED STUDY

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ABSTRACT

Self-medication (SM) is a growing healthcare problem worldwide and poses a major problem due to manifestations of adverse drug reactions, drug interactions, resistance to antibiotics, drug toxicities, leading to increased morbidity and mortality. SM among undergraduate medical students is a common thing due to various factors which include time constraint, false belief that young individuals seldom have any serious diseases, confidence of their newly acquired knowledge regarding pharmacology, which is a part of their curriculum. Although SM has advantages like saving time and quick relief, these practices could sometimes lead to more harm than good. So it is of utmost importance to take a cautious approach while prescribing medications to oneself or others. **Methods:** This is a cross-sectional study conducted to assess SM practices among the undergraduate medical students of Government Medical College, Srinagar. The data was collected using a pre-structured questionnaire and then analyzed using appropriate statistical methods. **Results:** A total of 124 students participated in the study which included 78 (63.9%) females and 44 (36.1%) males. The reasons for SM included minor ailments in 68 (62.5%) followed by confidence of their knowledge of pharmacology in 36 (32.7%). The drugs commonly used were PPI's in 65 (52.4%), followed by antibiotics in 27 (21.7%), antipyretics 15 (12%), analgesics in 11 (8.8%). Only 76 (70.4%) students were aware of the dosage and frequency of administration. Only 102 (94.4%) students were aware of the route of administration. **Conclusion:** Potential risks of self-medication practices include incorrect diagnosis, delays in seeking medical advice, ADR's, dangerous drug interactions, incorrect manner of administration, incorrect dosage, incorrect choice of therapy and risk of dependence and abuse which may sometimes lead to increased morbidity and mortality and therefore caution needs to be taken while taking or prescribing drugs.

INTRODUCTION

Self-medication is one of the growing problem the world over and posed a risk to one's health due to increased risk of developing adverse drug reactions, drug interactions, antibiotic resistance and toxicities which can in turn lead to increased morbidity and mortality.[1] SM is defined as "the includes diagnosing and treating one's own illness and prescribing drugs for one's self." Its is also defined as " the use of medication by people on the basis of their own experience without consulting a doctor."[2]

The prevalence rates of SM are high all over the world; 68% in European countries, and even more higher prevalence of as high as 92% in the developing countries. The prevalence in India is noted as high as 31%.[4] In developing countries, including India SM is rampant due to poverty, illiteracy, unrealistic beliefs and easy availability of drugs.[5] The other factors associated with SM include suggestions from friends, relatives and chemists, the availability of information from online sources and various advertisements. The practice of SM is even far more common among the younger generation who often diagnose and treat various ailments on their own using information from online sources like "google", without seeking professional help.[6,7] Pharmacology is a part of the curriculum in the undergraduate medical studies and SM practices are therefore quite prevalent among the undergraduate medical students, who often use various medications to treat different symptoms without assessing the negative aspects of this practice. Not only do the treat their own ailments but often they prescribe different medications to friends and family members without thinking of the consequences of such practices.[1,2]

Risks associated with SM includes:[8,9,10,11,12]
- Incorrect diagnosis
- Incorrect choice of drug
- Incorrect dose, route and frequency of drug
- Increased risk of ADR'S
- Increased risk of food and DI's

- Over-treatment
- Risk of abuse and dependence
- Increased morbidity and mortality

METHODOLOGY
This descriptive cross-sectional study was conducted in Government Medical College, Srinagar after approval from the Institutional Ethical Committee. The study participants included second year medical undergraduates as per the following inclusion criteria:
- Students who were willing to participate
- Students who reported to SM

Exclusion criteria
- Students who were not willing to participate
- Students from batches other than second year
- Those who had comorbidities

The participants were asked to fill a pre-structured questionnaire. The data was then analysed using various statistical tests.

RESULTS
A total of 124 students who admitted to self medicate, participated in the study which included 78 (63.9%) females and 44 (36.1%) males. The reasons for SM included minor ailments in 68 (62.5%) followed by confidence of their knowledge of pharmacology in 36 (32.7%). The source of information was mostly textbooks seen in case of 64 (57.1%), suggestions from friends and seniors in case of 26 (23.2%) Students. The drugs commonly used were PPI's in 65 (52.4%), followed by antibiotics in 27 (21.7%), antipyretics 15 (12%) and analgesics in 11 (8.8%). Only 76 (70.4%) students were aware of the dosage and frequency of administration. Only 102 (94.4%) students were aware of the route of administration. The most commonly used route among the participants was oral. Only 34 (30.4%) participants used routes other than oral. 70 (56.4%) students were aware of the food and DI's of the drugs used. ADR's were experienced in 16 (14.3%) participants only. Most of the ADR's experienced were mild. ADR's requiring consultation with a physician was reported by 16 (14.3%) participants only. 84 (67.7%) participants acknowledged that SM was a harmful practice. 74 (64.9%) participants admitted to prescribing drugs to their friends and family.

DISCUSSION
Self medication is one of the growing problem the world over and poses a risk to one's health due to manifestations of adverse drug reactions, drug interactions, resistance to antibiotics, drug toxicities leading to increased morbidity and mortality. SM among undergraduate medical students is a common thing due to various factors. Pharmacology is a part of the curriculum in the undergraduate medical studies and SM practices are therefore quite prevalent among the undergraduate medical students, who often use various medications to treat different symptoms without

assessing the negative aspects of this practice. Not only do the treat their own ailments but often they prescribe different medications to friends and family members without thinking of the consequences of such practices.

The practice of SM is very common among undergraduate medical students although they are not authorized to prescribe medications. Various studies have been conducted in the past to assess various aspects of SM among medical students. One such study conducted by Khadka A, et al.[2] showed that out of 76 students who participated in their study 52 (68.4%) students reported SM.

Another study conducted by Arti A ,et al. conducted a study among 488 medical students to assess the practice of self medication. The study indicated that 71.7% students self medicated. Among these majority used the allopathic medications. Most common reasons for SM reported in our study were minor ailments and quick relief. Majority of students agreed that medical knowledge is necessary for administration of SM.[3] Similar results were shown in our study. The participants in our study reported the reason for SM as minor ailments in 68 (62.5%).

CONCLUSION
Potential risks of self-medication practices include incorrect diagnosis, delays in seeking medical advice, ADR's, dangerous drug interactions, incorrect manner of administration, incorrect dosage, incorrect choice of therapy and risk of dependence and abuse which may sometimes lead to increased morbidity and mortality and therefore caution needs to be taken while taking or prescribing drugs.

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