

**A STUDY REGARDING SELF-MEDICATION IN MBBS STUDENTS OF NISHTAR
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ABSTRACT

Background: This study was undertaken to determine the knowledge, attitude & practice of self-medication among Medical students. Although noticed in common people, self-medication is not expected from undergraduate students of health care system. Complementary and alternative medications are commonly used by MBBS students after having studied pharmacology. It assumes a special significance among medical students as they are the future medical practitioners. This research study discusses the patterns, prevalence and reasons of self-medication among medical students as well as the various common drugs that are adopted by them in the process.

Objective: Main purpose of this study was to assess the pattern of self-medication practices and the common type of illnesses for which self-medication has been opted by MBBS students. It aims to identify frequently used drugs, determinants of self-medication, drug information resources, the side effects encountered, the prevalence, attitude and knowledge towards self-medication. **Methods:** This is an observational study that has been conducted with the help of a cross-sectional questionnaire (mentioning different groups of drugs) among a sample of 220 medical students. Duration of the study was four months i.e. from March 2018 to June 2018. Data was analyzed by SPSS v 14 and other methods were adopted to test the results. **Results:** It was found that among 220 students, 44% of the students used self-medication for their symptoms in the last one year. Out of those 220 respondents, 97 practiced self-medication. The principal complaints for seeking self-medication included gastroenteritis, fever, headache, urinary tract infections, pharyngitis and common cold as reported by 97 students, followed by other minor ailments 7% (15 respondents). Drugs/ drug groups commonly used for self-medication included OTC analgesics (73.33%), followed by antibiotics (53.33%), Antihistamines 40%, Sedatives 6.67% and the rest 13.33% included antipyretics, steroids, Beta blockers, Proton Pump inhibitors, cough syrups etc. Among reasons for seeking self-medication, majority of the students, i.e. 85% (187 out of 220 students) felt that their illness was mild and used it for the sake of convenience while 15% (33 out of 220) preferred as it is cost-effective.

KEYWORDS: Self-medication, medical students, Antibiotics, analgesics.**INTRODUCTION**

World Health Organization defines self-medication as the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms.^[1,2] It has also been characterized as the use of “nonprescription medicines without prior consultation regarding indication, dosage and duration of treatment”.^[3] With the increasing availability and accessibility of pharmaceutical products around the globe, there appears to be a proportional rise in self-medication as well, more particularly in developing countries with lesser checks on drug accessibility. From a comparison of numerous studies conducted in some developing countries, the prevalence of self-medication was found to be the highest in Malaysia (approximately 80.9%), countries

including Pakistan,^[4] Slovenia,^[5] and Nigeria,^[6] also have a high rate reaching above 50%.

Drugs that are predisposed to self-medication mostly include antibiotics, analgesics, anti-malarial, anti-hypertensives and others. Self-medication of antibiotics is common in many developing countries where drugs are not well regulated and are easily available without prescription.^[7] Self-medication, however, is associated with many health problems, such as bacterial resistance to antibiotics and expedited development of multiple resistant organisms in the body, that become difficult to treat and have resulted in higher morbidity.^[8]

Studies reveal that the increase in self-medication is due to a number of factors, including, but are not limited to,

medical knowledge, speedy access to drugs, and greater availability of medicinal products, personal convenience and cost savings.^[9] Medical students are more prone to adopt self-medication due to their knowledge of medicine. There is, however, little research available on the alarming hike in the practice of self-medication by undergraduate medical and paramedical students,^[10,11] therefore, this study, focusing on the same topic, was conducted to assess the use of self-medication among medical students of Nishtar Medical College and the factors leading thereto.

METHODOLOGY

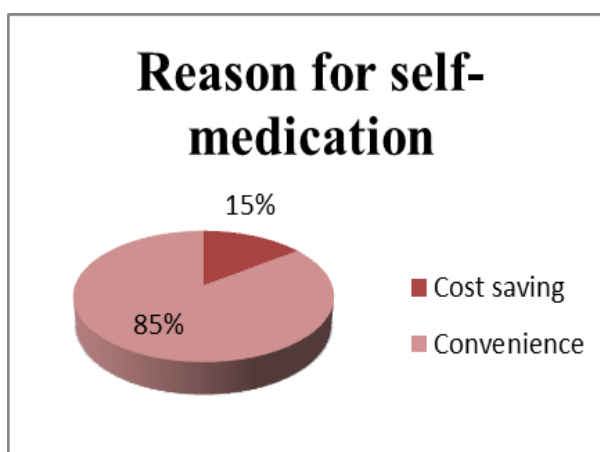
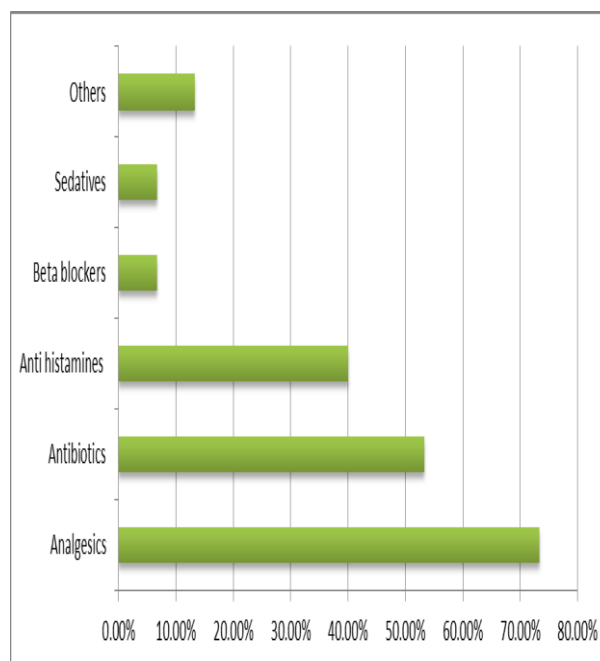
We conducted an observational and cross sectional study of MBBS students of Nishtar Medical College. The duration of the study was four months, starting from February 2018 to May 2018. Non-probability convenient sampling technique was used for a sample size of 220 students. The data was collected through a questionnaire, which was distributed among the participants. The questionnaire consisted of carefully formatted questions to assess the knowledge and practices of students about self-medication. Computer program SPSS V 16.0 was used for the statistical analysis of the data and reports were generated accordingly.

RESULTS

In our surveys, the age group was between 19 to 24 years. The male to female ratio in the sample students was 2:3. Among those students, it was found that 47% of the sample size chose to consult a doctor in case of illness, 9% of them consulted other healthcare persons (Hakeem, homeopathic, etc.) and the remaining 44% opted for self-medication. The frequency of use of self-medication varied among different students, less than 4% of students almost always opted for self-medication. Around 55% used self-medication occasionally and more than 40% relied on it very rarely. The most common illness self-treated by students was headache, next to it was gastroenteritis and sore throat. Only 7% of students used self-medication in diseases other than these common complaints. In the past one year, 20% of the sample group used self-medication twice, 40% used it three to four times, and 40% opted it more than 5 times. There was not a single student in the sample size who had never tried self-medication. The most common reason that were found for self-medication were cost-saving (15%) and convenience (85%). Surprisingly, there was a large number of students (70%) who changed the dose themselves if treated by a doctor or any health personnel. The results show that although a large number of students have embraced the practice of self-medication but most of them (97%) have never experienced any side effects by that medication. The Analgesics are the most commonly used medicines for self-medication in the case of fourth year MBBS students, followed by antibiotics, antihistamines, and others. The most commonly used drugs in self-

medication were found to be Panadol (Ibuprofen) and Disprin.

Type of complaint	Percentage
Gastroenteritis	11%
Fever	32%
Headache	50%
Others	7%



DISCUSSION

Several studies have been conducted over the years to discern the behavior of people prone to self-medication but very few researches are organized to specifically study the behavior of medical students in this regard. This study was therefore conducted to observe the prevalence of self-medication in MBBS students, and it concluded that around 44% of those students used self-medication for their common complaints in the duration of their medical education. The most common complaints found to be self-treated include headache and gastroenteritis.

Based on these results, and several studies performed worldwide, it can be observed that self-medication rates are quite significant in developing and poor nations as compared to developed countries.^[12] A major factor contributing to this difference is the ease of access to common drugs in the developing countries. Pakistan, being a developing country, lacks resources and funding to cater to this issue. There are very limited checks performed by pharmacies while selling drugs and most drugs are available without any sort of medical prescription, which further eases this process for medical students and patients in general. Among these commonly found drugs, the use of analgesics and antibiotics is found to be very significant. The use of antibiotics is estimated to be around 53.33% and use of analgesics is 73.33%.

There appears to be a general predisposition among medical professionals to practice self-medication when they experience some illness. Although it is quite convenient for them to consult fellow physicians, but due to multiple reasons including busy lifestyle, privacy of health issues, and non-seriousness of the disease etc., they hesitate in seeking medical help from professionals.^[13] This particular practice, however, comes with more disadvantages than advantages. There is an alarming numbers of student population which is not considerate of the serious side effects that can be caused by this method in the long run. Even though self-medication is a convenient option in emergency situations, but improper administration can have harmful effects as well. Responsibility and care in practicing self-medication is pertinent to manage such emergencies, and it is advised to consult experienced medical professionals in acute cases as inappropriate self-medication can have unfortunate results.

Since the practice of self-medication is very common among medical professionals, the young students in this field also blend in this culture from the beginning of their medical school. To eliminate this issue, further studies need to be conducted, focusing on assessing the attitudes, motivating factors, knowledge and practices of self-medication among medical professionals. A wider scope and segment would enable a more thorough understanding of the subject.

CONCLUSION

The study revealed that the prevalence of self-medication among MBBS students of Nishtar Medical College is quite high. Despite this high rate of self-medication, it is quite difficult to ascertain the behaviors and attitudes connected with this practice. The results of the study suggest varying behaviors towards self-medication, depending on various different socio-demographic characteristics. The most common illnesses treated through self-medication were found to be the minor diseases including headache and gastroenteritis, and the most commonly used drugs for self-medication were analgesics and antibiotics.

The results of the study identify that in order to stop the growing trend towards self-medication, strong governmental and institutional policies need to be in place. These policies along with completely regulatory boards, will act as deterrents and prohibit easy supply of drugs without valid prescriptions. Researchers and health practitioners should work alongside administrative and legislative decision makers to establish awareness programs focusing on the disadvantages of self-medication, and targeting not only the medical students, but also the general public. There is an urgent need to develop strict legislative rules and regulations to completely halt the supply of drugs without prescription except the medicines that can be administered safely in emergency situations without causing side-effects. These patterns of self-medication found through this study can be regarded as occupational hazards for medical students and professionals. If doctors cannot be trusted to acknowledge the importance of proper medication and care, they will not be trusted by the patients to take appropriate care of them, therefore it is pertinent to address and take care of this issue with utmost importance.

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