

# SELF MEDICATION AMONG NON MEDICAL STUDENTS OF ISLAMIA UNIVERSITY BAHAWALPUR

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## ABSTRACT

**Background:** Use of medicine by a patient on his own initiative or on advice of a pharmacist or a lay person instead of consulting a medical practitioner is known as self-medication. Internationally self medication has been reported as being on rise. Little has been reported on the extent of self medication practices in Pakistan. **Objective:** To determine prevalence and commonly used drugs in self medication among non medical students of university. **Subjects and Methods:** This descriptive cross-sectional study was conducted in Baghdad campus of Islamia University Bahawalpur, from 1<sup>st</sup> May, 2011 to 15<sup>th</sup> June, 2011. Predesigned questionnaire was filled by the investigators themselves. **Results:** The prevalence of self medication was found to be 71.2%. The most common factors which led to it were “previous experience with similar symptoms (58%)”, “Pharmacist's advice (28%)” and “friend's advice (15%)”. **Conclusion:** Prevalence of self-medication is high even in educated youth, despite majority being aware of it to be harmful.

**Key words:** Self-medication, Prescription, Non-Medical students.

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## INTRODUCTION

Self-medication is defined as obtaining and consuming drugs without advice of a physician either for diagnosis, prescription or surveillance of treatment. This includes acquiring medicine, resubmitting old prescriptions to purchase medicine, sharing medicine with relatives or members of one's social circle or using leftover medicine at home.<sup>1</sup> In economically deprived countries most episodes of illness are treated by self medication.<sup>2</sup>

One reason for this may be related to availability of a wide range of non-prescription medication that can be obtained without doctor's prescription. Other reasons may include; influence of peers and parents, previous exposure with similar symptoms, increased advertisement of pharmaceuticals via electronic and print media,<sup>1</sup> poor socioeconomic status, high cost of modern medicines, and non-availability of doctors in rural areas.<sup>3,4</sup> Published articles have reported that common practice of over the counter medication has been associated with adverse health reactions and fatalities.<sup>5,6,7</sup>

The misuse of nonprescription drugs amongst

students has become a serious problem. The youth is especially exposed to the media and the increased advertising of pharmaceutical poses a larger threat to the young population. This raises concerns of incorrect self diagnosis, drug interaction, and use other than for the original indication. Prevalence of self medications among university students was found to be 94% in Hong Kong, 76% in Karachi, and 86.4% in Rio Grande, Brazil. Common factors associated with self medication were, the perception that the disease was mild, previous experience with the same medication and symptoms, knowledge of medicines and illicit drug use.<sup>3,4,5,8</sup>

In Pakistan, almost every pharmacy sells drugs without a prescription; a phenomenon seen in many developing countries. Consequently, antibiotics and potentially habit forming medicines are easily available to the common man. Also the lack of good primary health care system coupled with cost issues causes the general public to approach various other doors instead of a doctor to seek help for a problem. The primary aim of current survey was to determine prevalence, and evaluate knowledge about self medication among youth of Pakistan.

The objective of this study was to determine the prevalence of self medication practice among non medical students and to know the commonly used drugs for self medication.

## SUBJECTS AND METHODS

This descriptive, cross-sectional study was carried out in Baghdad campus of Islamia University

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Bahawalpur, from 1st May, 2011 to 15<sup>th</sup> June, 2011.

Level of confidence: 5%, precision: 10%, anticipated proportion: 76%

Using WHO software determination of sample for health studies, the sample size calculated was 73 but more students were included and sample of 94 students was taken.

### Data Collection Procedure

A predesigned study questionnaire was adopted from various similar studies conducted previously and pretested on a sample of 30 participants. Ambiguity in questions shown by sample result was removed before its implementation. The questionnaire was designed to record demographic details, prevalence, knowledge and attitude of the student towards self medication. The permission to conduct the study was sought from the VC of the university. 94 willing students were included in the study after explaining them the purpose of the study and assurance of confidentiality. Proforma were filled by the investigators themselves.

### Data Analysis

Data was analyzed manually, simple frequencies were calculated for gender, self medication, associated factors, different types of drugs used and awareness regarding harmfulness of self medication. These were presented in the form of tables and figures. Chi square was used as test of significance as the variables under study were qualitative in nature.

## RESULTS

The mean age of respondents was between 22 years. There were 34 (36.2%) male and 60 (63.8%) female students.

The prevalence of self medication was found to be 71.2% (Fig. I). Out of a total of 34 males, 28 (82%) and out of 60 females, 39 (65%) were self medicating. This difference observed was statistically insignificant.

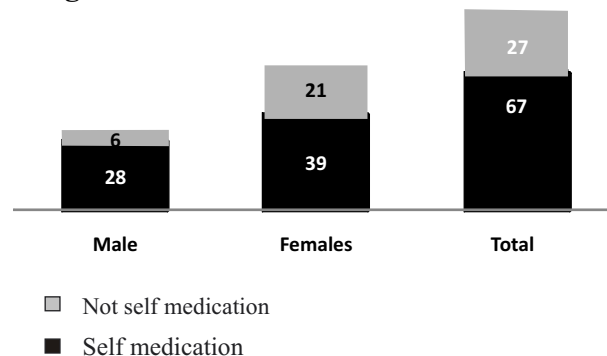
Most common factors which led to self medication were "previous experience with similar symptoms" 58.2%, "pharmacist advice" 28% and "friend's advice" 15%. (Table I).

Common drugs used in self medication were pain killers (63.8%), cough suppressants (41.5%), anti-allergics (25.5%) and sleep inducers (23.4%)

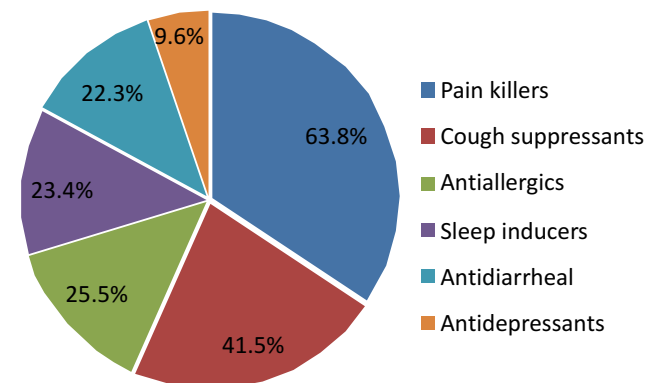
(Figure II). 43 students (45.7%) reported that they altered the regimen of prescribed medicines at their own. Moreover, 50 (53.2%) reported that they did not complete the course of prescribed medicines.

Out of total 94 students, 37 (39.4%) reported that they would like to consult a doctor every time they got sick, 76 (80.1%) students were aware of the fact that self medication can be harmful. Still 33 (35.1%) students reported that they advice self medication to their fellow students.

**Figure I: Proportion of students self medicating, with gender distribution.**



**Figure II: common drugs used for self medication**



**Table I: Factors that lead to self medication among self medicating students**

Factor	Count	%age
Previous experience	39	58.2%
On pharmacist advice	19	28.3%
On friend's advice	10	15%

## DISCUSSION

The study demonstrated that about 71.2% students were in habit of self medication. The inquiries

conducted in different areas like Hong Kong, Croatia, Brazil, Karachi and Nigeria revealed the prevalence of 94%, 88%, 86.4%, 76% and 53.8% respectively.<sup>3,4,5,6,9</sup> If we categorize the self medication rate observed in our study with the given studies, we fall midway, i.e., some countries have got high rates and some lower rates as compared to this study.

Associated factors with self medication in our study were previous experience, pharmacists and friends advice. Hong Kong study revealed medicine use due to previous experience and belief that illness could be cured without doctor's advice to be associated factors. Factor responsible for self medication in inquiry conducted in Karachi was previous experience. In Brazil, self knowledge was taken as adequate for self medication.<sup>3,4,5</sup> Common drugs taken in the present study by the students were pain killers, cough suppressants.

In Hong Kong, most commonly drugs used were antipyretics, analgesics, topical preparations, Chinese herbal medicines and antiallergics.<sup>3</sup> In Karachi, the study showed analgesics, antipyretics and antibiotics were the most commonly used drugs.<sup>4</sup> In Brazil, drugs used were acetaminophen, dipyrrone, aspirin, Phytotherapeutic compounds and illicit drugs including marijuana, LSD, Cocaine, Ecstasy.<sup>5</sup> In Nigeria, the most common drugs used in self medication were antibiotics and antimalarials.<sup>9</sup> This present study also agrees with the pattern of referred studies except the illicit drugs. This contrast may be due to the fact that our respondents may have tried to hide the use of such drugs as this practice is taken as a social stigma in our country.

A similar study conducted in Malaysia in general public showed, 83.9% of the sample population using over the counter (OTC) medications. The commonly consumed OTC drugs were supplements and vitamins followed by painkillers, flu/ cough remedies and sore throat products. The OTC medications were most frequently bought from pharmacies. Easy access, convenience and time saving were the most frequent reasons for self-medication. Eighty two percent of the respondents stated that their level of knowledge regarding OTC medications was moderate to low.<sup>7</sup>

A similar study conducted among non-healthcare

students of the University of Sharjah, United Arab Emirates revealed self medication to be 59%. The majority of students (49%) obtained their medication from pharmacies.<sup>8</sup>

Other sources for obtaining non-prescription drugs include street market (13, 7%), herbal store (3, 2%) and a relative or friend (4, 2%). Significantly low number (11%) of respondents used antibiotics for self-medications. Only 8% respondents were aware of rational drug use. Most common reasons for self-medication included seeking quick relief (67%), physician's advice of self-management (50%), illness is minor (45.5%), personal convenience (38%), health problem is not serious (33.5%) and high cost of medical consultation (33%).<sup>8</sup>

The prevalence discovered by our study is high. Our participants belong to well educated group of society who are aware of the harmful effects of self medication. If prevalence of self medication is so high in this group, it indicates that the prevalence must be much higher in lesser educated or uneducated segments of population who are unaware of its harmful effects and are unable to afford the expenses of visiting a qualified doctor each and every time they or their family members fall sick.

Reasons of self medication from the above given studies are more or less in agreement with each other except the study in Brazil, where illicit drug use is common.<sup>5</sup>

It is true that self medication can help cure minor ailments and hence reduce pressure on medical services particularly in under privileged countries, the availability of complex drug groups without prescription is a source of great concern. Practice of self medication has many adverse effects and can lead to many problems including the global emergence of multi drug resistant pathogens, drug dependence and addiction, over and under dosage, drug interactions with at times fatal complications.<sup>9,10</sup>

## CONCLUSION

Our study showed that prevalence of self medication is high in educated youth, despite majority being aware of it to be harmful. Holistic approach must be taken to prevent this problem from escalating which would involve; awareness and education regarding implications of self medication, strategies to prevent availability of medicines without prescription, strict rules regarding pharmaceutical advertising and strategies to make healthcare available to all.

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