

Attitude and Practices of self-medication among the students of Sialkot Medical College, Sialkot

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ABSTRACT

Background: self-medication is becoming increasingly prevalent in our daily lives, yet it is a dangerous and harmful activity.

Aim: To determine the prevalence and knowledge of self-medication among the medical students of Sialkot Medical College.

Methods: A descriptive study in which total sample of 500 medical students were approached. Only, 349 students had filled the questionnaire. Regarding sampling technique, all the students currently enrolled in MBBS from session 2018 to 2022 of SMC were included. Data was collected using self-structured questionnaire. Data was analyzed using SPSS version 25.

Results: Self-medication was found to be 83.8% during the last 1 year. Most commonly used medications include analgesic 73.2%, antibiotics 36.6%, gastric acidity medication 25.5%, anti-emetics and antitussives. Commonly experienced symptoms include; headache (73.6%), fever and flu (58%), cough (30.9%), gastric acidity (24.8%) and others. Source of information include family and friends (56.1%), medical text books (18.2%), internet (11.5%) and others. About 46.2% students felt that problem was not serious to consult a physician and 29% reported personal convenience.

Conclusion: Prevalence of self-medication was high among the undergraduate university students of Sialkot Medical College, Sialkot.

Keywords: Self-medication, prevalence, attitude

INTRODUCTION

Self-medication (SM) is the process by which individuals choose and take medications on their own to treat self-diagnosed illnesses or symptoms, as well as the intermittent or ongoing use of a prescribed medication for either chronic or acute diseases or symptoms. Self-medication is a part and parcel of self care and is practiced worldwide. It is a two-edged sword with risks and advantages of its own^{1,2,3}.

Most of the times, self-medication had negative effects rather than beneficial ones⁴. Self-medication is a common practice worldwide, but is more prevalent particularly in developing countries^{5,6,7}. In addition to using over-the-counter medications, people also misuse prescription medications without a doctor's supervision. Patients are unlikely to benefit from such a behavior, particularly when antibiotics are involved because it carries significant dangers for both the patient and the community⁸.

Self-medication has increased in recent years due to a number of factors, including socioeconomic ones, lifestyle changes, easy availability to pharmaceuticals, the inefficiency of healthcare systems, prior experience of the illness, high expenses, inaccessibility, and unrestricted drug distribution especially in the developing countries^{9,10}. Wrong self medication might be associated with harmful consequences like drug dependence, drug resistance, potential delays in the accurate diagnosis and treatment of serious health issues, concealing disease symptoms and making the condition worse, illegal drug use, drug interactions, undesirable pharmaceutical effects, excessive drug use, the emergence of pathogen resistance, and the disease's protracted course^{10,11}. Asia has the highest rate of self-medication among other continents with 42 studies and the prevalence of 71%⁸.

In Pakistan, previous studies in Karachi, Islamabad and Abbottabad had reported prevalence as 76%, 80.9% and 95.5%^{12,13,14}. After analgesics, Antibiotics are reported to be second most commonly used medication. Most commonly used antibiotics were antibacterial and antimalarial. From the period of 2000 to 2005 the prevalence rate of consumption of antibiotics was increased from 39 to 65% worldwide¹⁵.

The use of over the counter medicines and non-compliance of the patients contribute a lot in leading towards tolerance and cross tolerance to drugs. This study is done just to assess attitude and practice of self medication in students of Sialkot Medical College.

MATERIALS AND METHODS

A cross sectional Descriptive study was carried out among 500 consented medical male and female students of Sialkot medical college, Sialkot. The study was conducted during the month of June, 2022. A self-structured manual questionnaire was used to obtain the response. The Questionnaire was based on demographic information, usage of self-medication, as well as kind of medicine, consultation of physician and awareness of hazards of self medication. All administrative and non-administrative staff and post graduate students were excluded from the study. A written permission was obtained from the community medicine head of department at college to collect the data from the students.

Statistical analysis: All the data were analyzed using SPSS Vr 25.0 and statistical analysis was done by applying descriptive statistics. Cross tabulation and chi-square test were applied to determine the relationship between prevalence of self-medication and different demographic factors, where it was necessary. A p-value of <0.05 is considered significant.

RESULTS

Out of total 500 students 314 had responded. Response rate was 62.8%. out of total respondents 37.9% were males and 62.1% were females. Mean age of participants was 21 years. Frequency of self-medication was significantly high. Out of total 314 respondents, 263 (83.8%) were doing self-medication. Respondents practicing self-medication were from first year, 65(20.7%) from 2nd year, 53(16.8%) from 3rd year, 62(19.7%) from 4th year and 66(21.02%) from final year MBBS.

Analgesics being on top with 73.2% rate. Antibiotics with 36.6% were second most commonly used drugs. Omeprazole were 25.5%, antitussive 19.4%, Antiemetics 14%, Eye drops 10.2%, Eardrops 9.9%, sleeping pills 7.3%, weight loss medication and herbs 5.4% and Duphalac syrup 5.1% (Table 1).

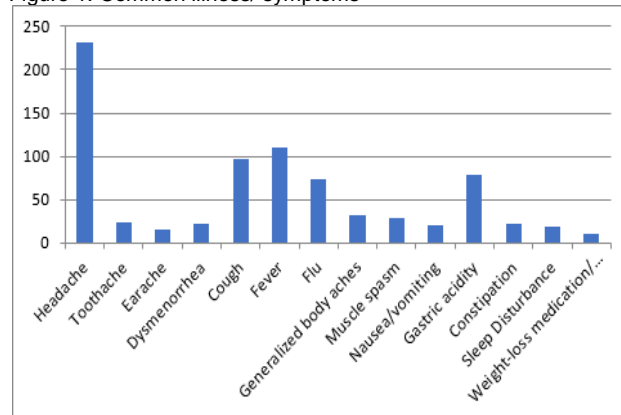
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Table 1: Class of medication and relative frequency tabulation

Class of Medication	Frequency	Percentage
Analgesics	230	73.2%
Eardrops	31	9.9%
Eyedrop	32	10.2%
Antiemetic	44	14.0%
Antibiotics	115	36.6%
Antitussive	61	19.4%
Omeprazole	80	25.5%
Duphalac	16	5.1%
Sleeping pills	23	7.3%
Weight loss Medication	17	5.4%

Figure 1: Common illness/ symptoms



Most commonly experienced symptoms/ illnesses include headache (73.6%), fever and flu (58%), cough (30.9%), gastric acidity (24.8%), generalized body aches and muscle spasm (19.4%), constipation (7%), and dysmenorrhea (7%) (Fig 1). About 77.1% respondents said that their symptoms relieved by self-medication. Out of total respondents, 70.1% reported that they did observe change in their self-medication especially during exam days compared to regular days while 29.9% had experience no change even during exam days. Source of information for self-medication include family and friends (56.1%), medical text books (18.2%), internet (11.5%) and others. Respondents reported that 65% were aware of damaging side effects of self-medication. 82.2% respondent check the expiry date before using a medication.

Table 2: Reason for not consulting physician in students

Reason of not consulting a physician	Frequency	%age
Problem was not serious	145	46.2%
Personal convenience	91	29.0%
Access to nearest clinic is difficult	31	9.9%
Avoid long waiting line at clinic/Hospital	58	18.5%
Financial issue	6	1.9%
To avoid extensive investigations for minor ailments	33	10.5%
Relative suggestion	15	4.8%
Physician advice to treat minor illnesses at home	38	12.1%
Physician prescription was not effective	13	4.1%
Embarrassed of discussing specific health problems.	10	3.2%

Common reasons for not consulting a physician before taking medication for self recognized illnesses include following; 46.2% felt that problem was not serious to consult a physician, 29% reported personal convenience, 18.5% to avoid long waiting line at clinic/Hospital, 12.1% physician advice to self treat minor illnesses at home and 10.5% to avoid extensive investigations.

DISCUSSION

Students frequently use self medication (SM) to treat mild illnesses and other non-serious health issues especially in developing

countries including different cities of Pakistan¹³. In our knowledge there has been no previous study conducted on self medication in Sialkot, Pakistan.

This study showed that, 83.8% were practicing self-medication during the last 1 year. Similar results were reported the SM in Medical Students especially during COVID-19 Pandemic: Lower rates were observed in studies conducted in Karachi (76%), Kolkata (65%), Iraq (68.73%), western Ethiopia (73.4%), Saudi Arabia (64.8%), Nigeria (69.4%) and Zambia (61.1%)^{12,16,17,9,18,19} respectively. On the other hand, higher rates of SM among the university students were reported in studies conducted in Abbottabad (95.5%), Bangladesh (88%), Jordan (86.7%), Iran (94.1%), Saudi Arabia (98.7%) and Nepal (95.4%)^{14,20,21,22}. It is proposed that high levels of education-related overconfidence and a generalized understanding of regularly prescribed drugs might be the two potential causes of the high prevalence of self-medication among university students²³. We observed no significant association between gender and self medication practice. These results were in accordance to Karachi¹² Ethiopia²⁴, Iran⁴ and Saudi Arabia²¹. In contrary to that, significant association was found in a study conducted in Egypt²⁵ and Nigeria⁹.

We found self medication to be practiced more by 3rd and 5th year MBBS students compared to 1st year. No of studies^{4,18,25} found same results. High prevalence of self medication in students of higher academic level that as medical students transition towards to their senior years of study, they became more knowledgeable about medications and their pharmacodynamics¹⁷.

In our study most commonly used medications are analgesic followed by antibiotics, omeprazole, antitussive, antiemetics and other medications with lower frequency include; Eye drops Eardrops, sleeping pills etc. These results are comparable with number of studies^{12,13,16}. It is proposed that antibiotic self-medication raises the possibility of inappropriate drug usage, which puts patients at risk for drug inter- actions, masking the manifestations of underlying diseases, and the emergence of microbial resistance. There is a serious concern about antibiotic resistance in the world as a result of the emergence of multidrug-resistant bacterial strains that are extremely resistant to several different antibiotic classes²⁶. Most common illnesses include includes headache, fever and flu, cough, gastric acidity, generalized body aches and muscle spasm. These are comparable to studies^{4,13,22}.

Source of information for self-medication include family and friends followed by medical text books and internet. Similar results obtained from studies^{27,28,18}. Common reasons for not consulting a physician before taking medication for self recognized illnesses include following; majority felt problem was not serious, followed by students felt personal convenience, some avoid long waiting line at clinic/Hospital etc. Our results were comparable to other studies carried out worldwide^{13,17,26}. For Pakistan, affordability is not the primary reason because of health card facility that provides free health care services to all Pakistan residents.

In this study, 70.1% reported that they did observe change in their self-medication practice during exam days compared to regular days. This is in contrast to Iraqi medical university study where "Most of the respondents reported that there was no difference in use between regular college days and exam days."^{17,26}. It is suggested that if the students knew well about the overwhelming harmful effects of self medication, instead of having a simple perceptible that it is wrong; the prevalence rates might be much lower¹².

Limitations of study: The sample size was small and study was conducted in only one university. Some students had given same response to each survey question.

CONCLUSION

Study found a high prevalence of self medication among the undergraduate university students of Sialkot Medical College, Sialkot. This type of practice is an alarming threat to general public

health. Most common source is family and friends which could be eliminated by Proper awareness sessions. Drug legislation should be strengthened at federal level to decrease availability of medicines especially antibiotics and sleeping pills without proper prescription to reduce drugs resistance, dependence and addiction.

Conflict of interest: Nothing to declare

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