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EVALUATION OF SELF MEDICATION TRENDS AMONG PHARMACY AND MEDICAL STUDENTS

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ABSTRACT

Self medication is common practice worldwide and it leads to irrational use of drugs among society. This cross-sectional study was conducted to evaluate the practice of self medication and different factors linked with this practice among medical and pharmacy students in Pakistan. A pre-designed questionnaire was used and a total of 400 female students from medical colleges and pharmacy institutes participated. Chi square test was used to evaluate the association of these fields and year of study with self medication. It was observed that practice of self medication was similar in medical and pharmacy students as there was no significant association of this objective with self medication but there was significant association between self medication and year of study. This study present the comprehensive description of self medication practice among pharmacy and medical students and this is highly prevalent in medical and pharmacy students which may increase the misuse or irrational use of medicines. Pharmacist can also play their part in the prevention of this practice by educating students about useful and harmful aspects of self medication and this growing trend can be prevented by restricting the unethical promotion of drugs.

KEYWORDS: Self medication, Irrational, Unethical, Promotion, WHO.

INTRODUCTION

World Health Organization define self medication as the use of drugs for the treatment of self-diagnosed condition or symptoms, or the use of drug without proper prescription from health care professional or continued use of drug for severe or recurrent disease or condition.[1] Traditionally it can be defined as use of drugs, herbs, or other home remedies on suggestion from another person without consulting doctor. [2]

Self medication is considered as self care, but in contrast to self care, self medication can be beneficial as well as can be harmful as it involves drugs. WHO has given the concept of responsible self medication that can help to eradicate symptoms or cure disease that do not need medical consultation and provides alternative treatment for common symptoms.[1] Self medication can be beneficial if it is based on correct medical knowledge otherwise it can lead to irrational use of drugs that can cause wastage of material or resources, increased pathogen resistance and other dangerous health hazards like adverse drug reactions or even death.[3] Studies showed that there are a number of factors that can lead to self medication like lifestyle, easy accessibility to drugs, knowledge about drugs, for saving time, and for treating minor illnesses through self care.[4]

Nonprescription drug's misuse by students is becoming serious problem nowadays as young generation has access to media and unethical publicity of drug through advertisement. It causes huge threat to young population leading to problems like incorrect self diagnosis, drug interaction, and using drug that is not suitable for original indication. According to survey, majority of students use at least one of the advertised products without consulting their physician.[5]

In Pakistan and many other developed countries most of the pharmacies sell drugs without any prescription and antibiotics are common medicines that are easily available to common man and this due to less awareness can lead to serious side effects.[6] In a study conducted in Nepal it was found that self medication with antibiotics is higher in developing countries than in developed ones.[7]

In another study conducted in west Bengal it was found that common indications for practicing self medication include cough and cold mostly then diarrhea, fever, headache and pain respectively and most commonly used drugs were antibiotics, analgesics, antipyretics, anti ulcer, cough suppressants etc respectively, and the reasons for practicing self medication were that the

illness was mild, using medicines without visiting physician was time saving and medicine was cost effective.[8]Although self medication is very old practice as if it is used appropriately, it can decrease the burden on doctors and can make people health conscious. But if abused or misused it could damage the accurate course of treatment for certain disease and could cause toxicity, adverse effects or other problems. [9]

Pharmacist has great role in field of medicines and can guide consumers about self medication related aspects as counselor, communicator, and supervisor and as health promoter.[10] The study aims to evaluate the practice of self medication and different factors linked with this practice among medical and pharmacy students.

MATERIALS AND METHODS
A questionnaire based study was conducted and data was collected from 400 female students including 198 students from pharmacy and 202 students from MBBS on pre-designed Performa from different colleges and universities of Lahore including Service Institute of Medical Science, Lahore Medical and Dental College, Lahore College for Women University, King Edward Medical University and Allama Iqbal Medical College within time period of 2 months from September to October. In this study questionnaire were filled by face

to face interaction with students. Descriptive analysis was conducted and associations between different aspects of self medication were evaluated including association of self medication with field of study and year of study of students by applying chi square test using software SPSS version 22.

RESULTS
Table.1: shows the descriptive analysis of number of students participated in the study with respect to their field of study in the form of frequencies and percentages as 400 total female students participated out of which 198 were from pharmacy and 202 students were from MBBS.

Table.2: shows the descriptive analysis of number of students participated with respect to their year of study as out of 400 students 41 were from 1st year,87 students from 2nd year,66 students from 3rd year,113 students from 4th year and 93 students were from 5th year.

Table.3: shows the association of self medication with field of study of students and it was observed that there was no association of this practice with their field as $P>0.05$.

Table.4: shows the association of self medication with year of study of students and it was observed that there was association between practice of self medication and year of study as $P<0.05$.

Table.1: Percentages and frequencies with respect to field of study

Field of study					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	pharmacy	198	49.5	49.5	49.5
	MBBS	202	50.5	50.5	100.0
	Total	400	100.0	100.0	

Table.2: Percentages and frequencies with respect to year of study

year of study					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st	41	10.3	10.3	10.3
	2nd	87	21.8	21.8	32.0
	3rd	66	16.5	16.5	48.5
	4th	113	28.3	28.3	76.8
	5th	93	23.3	23.3	100.0
	Total	400	100.0	100.0	

Chi square test
Table.3: Association of parameters related to self medication with Field of study

	Parameter	Inference
Association with field of study(pharmacy and MBBS)	1. Practice self medication	P> 0.05
	2. Measures taken after indications of illness	P> 0.05
	3. Indications leading to self medication	P> 0.05
	4. Drugs used for self medication	P> 0.05
	5. Sources of drug information	P< 0.05
	6.Reasons for self medication	P> 0.05
	7. Sources of drug procurement	P> 0.05
	8. Awareness of aspects related to medicines	P< 0.05
	9.Experienced any side effects	P> 0.05

	10. Reaction after experiencing side effects.	P>0.05
	11. Check instructions in the package of medicine	P> 0.05
	12. Medical knowledge or doctor prescription necessary or not	P> 0.05
	13.Perception regarding preventing growing trends of self medication	P> 0.05

Table.4: Association of parameters related to self medication with year of study

	Parameter	Inference
	1. Practice self medication	P>0.05
	2. Measures taken after indications of illness	P<0.05
	3. Indications leading to self medication	P<0.05
	4. Drugs used for self medication	P <0.05
	5. Sources of drug information	P >0.05
	6.Reasons for self medication	P>0.05
Association with Year of study	7. Sources of drug procurement	P<0.05
	8. Awareness of aspects related to medicines	P< 0.05
	9.Experienced any side effects	P >0.05
	10. Reaction after experiencing side effects.	P<0.05
	11. Check instructions in the package of medicine	P< 0.05
	12. Medical knowledge or doctor prescription necessary or not	P> 0.05
	13.Perception regarding preventing growing trends of self medication	P <0.05

DISCUSSION

Self medication trends are growing tremendously among population and it depends on the person and what one chooses to self-medicate.[11] The present study was conducted in order to evaluate these growing trends and practices of self-medication among medical and pharmacy students. In the study, prevalence of self medication among medical and pharmacy students found to be 95.5% and in studies conducted in other countries it was found to be 43.2% in Ethopia[12], 55% in Egypt[13], 56.9% in Nigeria [14] and 80.9% in Malaysia.[15]

Two aspects which were considered in this study were whether students who self medicate are medical students or pharmacy students and second aspect was their year of study ranging from 1st to 5th year. In this study one focus was whether there was any association of self medication trends with their field of study or their year of study and it was observed that there was no significant association of self medication practice with their field of study (P> 0.05) means self medication practices among students were irrespective of the fact that whether they are medical students or pharmacy students. But there was significant association among self medication practices and year of the study (P< 0.05) as it varied in increasing order of year of study with low trends in 1st year and high trends in 5th year.

In this study most common reason for self-medication among students was the illness being minor in nature (49.4%). Similar reason was considered the common cause of self medication in a study from India.[16] Mostly students self medicate due to their knowledge about drugs and in this study 16.8% students practice self medication due to prior experience and similar reason was considered as common cause in studies from Ethopia[12] and Malaysia.[15]

Most common indications for self-medication were headache (36.7%), fever (18.1%), cough and cold (16.8%). However in studies conducted in India, most common cause was cough and cold [16] and most common drugs used for self medication were analgesics (37.2%), antibiotics (21.7%,) and antipyretics (15.8%) etc.

Study showed that students get information about medicine by reading literature and also from physicians. 68.7% students procure medicine from pharmacies and 17.6% used the previous unused medicines at home. 9.25% students out of 400 experience side effects due to self medication and most common side effect observed were allergic reactions followed by diarrhea, stomach pain, acne, weight loss and insomnia. 91.7% students considered that medical knowledge and prescription is necessary for use of medicines while remaining considered this aspect unimportant.

As self medication is growing in Pakistan and need of hour is to aware and educate people about responsible use of medicines and for this supply of medicines without prescription should be prevented and enforce strict rules regarding unethical pharmaceutical advertising.

CONCLUSION AND RECOMMENDATIONS

From this study it was concluded that trend of self medication among medical and pharmacy students was

incredibly high and students from both fields were equally under the influence of this practice but there was significant association among use of medication with reference to year of study as students from final year were most commonly found to be affected by this practice. This is the need of hour that institutes should create awareness programs and educate their students regarding good and bad aspects of self medication and about responsible use of medicines. Pharmacist should also play an important role in guiding students about responsible self medication as counselor, communicator etc.

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