

**SELF MEDICATION IN MEDICAL STUDENTS OF ALLAMA IQBAL MEDICAL  
COLLEGE****Rabail Riaz, Muhammad Waleed Akram\*, Rana Faseeh Ur Rehman**

Jinnah Hospital Lahore, Pakistan.

**\*Corresponding Author: Muhammad Waleed Akram**

Jinnah Hospital Lahore, Pakistan.

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**ABSTRACT**

**Background:** Self-medication is practiced significantly worldwide even though its types, extent and reasons vary. This research was conducted to describe and evaluate the medicines used by medical students, awareness, reasons behind self-medication, drug information resources, hazards and knowledge of drug profile. **Methodology:** A Cross-Sectional study was done at AIMC affiliated with Jinnah Hospital Lahore from April – June 2015, Questionnaire containing close and open ended questions distributed among medical students. **Results:** Among 300 students, 76.7% believed in self-medication, 90.7% practiced self-medication, 85.3% were aware of adverse effects, 45.3% had lack of trust in doctors and 61.7% students fully understood the instructions given. **Conclusions:** The conclusion from this study is that a significant number of students practice self-medication about 90%. Commonly used drugs are Analgesics and source of these drugs is pharmacy store. Common source of information for self-medication are previous prescription of doctors.

**KEYWORDS:** Self-medication, Medical students, practices, Awareness, Side effects.**INTRODUCTION**

Self-medication is defined as the use of medication, whether modern or traditional, for self-treatment without advice of physician (expert in medical profession) either for diagnosis, prescription or surveillance of treatment. It has its positive and negative aspects.<sup>[1]</sup> According to WHO self-medications do not require medical consultation and provides a cheaper alternative for treating common illnesses.<sup>[9]</sup> Self-medication increases the chances of illicit use of drugs and drug dependency and most of the sign and symptoms of underlying diseases are complicating the problem, creating drug resistance and delaying diagnosis.<sup>[1]</sup> Studies on self-medication shows that it is influenced by many factors, such as education, family, society, law, availability of drugs and exposure to advertisements mild illness, previous experience of treating similar illness, economic considerations and a lack of availability of health care personnel.<sup>[6,11]</sup> Medicines for self-medication are often called 'non-prescription' or 'over the counter' (OTC) and are available without a doctor's prescription through pharmacies. While responsible self-medication which is limited to over the counter (OTC) drugs, may generate substantial net benefit flows to economies through saving in travel and consultation time and the direct financial cost of treatment.<sup>[3]</sup> In developing countries easy availability of wide range of drugs coupled with inadequate health services result in increased proportion

of self-medication.<sup>[1]</sup> The studies conducted by Hughes et al 2001, shows that inappropriate self-medication results in wastage of resources, increases resistance of pathogens and generally entails serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence.<sup>[1,14]</sup> Unfortunately, in developing countries, professional health care is relatively expensive and in some cases not readily available therapy making self-medication an obvious choice of healthcare service. medical regulation has resulted in the proliferation of counter fee drugs that are in high demand for the treatment of highly prevalent diseases.<sup>[9]</sup> Alano. et al. 2009 revealed that there is an increase in trends of self-medications particularly among the youth. This can be attributed to socio-economic factors, life style, ready access to drugs, the increased potential to manage certain illnesses through self-care, and greater availability of medicinal products, socio-demographic, epidemiological, availability of healthcare and health professional, law, society and exposure to advertisement, high level of education and professional status.<sup>[6]</sup> Study of self-medication practice among medical students is very important as they are a segment of the population that is highly educated and represent the future generation of drug prescribers and health educationalist.<sup>[7,11]</sup> Self-medication was practiced with a range of drugs from the conventional analgesics to antibiotics. Although the practice of self-medication is inevitable, drug authorities

and health professionals need to educate students about the pros and cons of self-medication.<sup>[1]</sup> The objective of this study was to identify the factors that are associated with self-medication practices among medical students of AIMC.

**Operational Definition:** Self-medication is defined as the use of over-the-counter or prescription drugs, whether modern or traditional, for self-treatment, without prior consultation with a doctor.

**Material and Methods:** A Cross Sectional was conducted at Allama Iqbal Medical College affiliated with Jinnah Hospital, Lahore from April 2015 to June 2015. 300 medical students were selected through Non probability sampling method. Questionnaire containing close and open ended questions distributed among 4th year medical students of Allama Iqbal Medical College. Mean and standard deviation will be calculated for numerical variables like age, duration of self-medication. Data analyzed on SPSS version 17.0.

## RESULTS

Frequency tabulation and percentages generated for nominal variables.

**Table 1: Demographic and Self-medication history of respondents.**

Variables	Frequency	Percent
<b>Gender</b>		
Male	66	22.0
Female	234	78.0
<b>Residential Status</b>		
Day scholar	134	44.7
Hostelite	166	54.3
<b>Knowledge about OTC</b>		
From friends	80	26.7
Community pharmacist	24	8.0
From doctor	174	58.0
From advertisement	22	7.3
<b>Source of self-medication</b>		
From supermarket	22	7.3
From pharmacy	254	84.7
From clinic	24	8.0
<b>Types of medicine uses</b>		
Analgesics	172	57.3
Antibiotics	108	36.0
Cough remedies	20	6.7
<b>Reason for self-medications</b>		
Lack of trust on doctor	136	45.3
Less cost	104	34.7
Lack of access	60	20.0

**Table 2: Knowledge, Attitude and Practices towards self-medication (multiple response).**

Knowledge, attitude and practices towards self-medication	N	Percent of Cases
Belief in self-medication	232	77.3%
Self-treatment without prescription	272	90.7%
Knowledge about dosage	268	89.3%
Reading of package inert	194	64.7%
Awareness regarding adverse effects	260	86.7%
If suffering from any long term illness?	50	16.7%
Consultation from doctor??	116	38.7%
Knowledge about hazards of increased dose?	254	84.7%
If experienced any adverse drug reaction?	56	18.7%
If habitual to any drug?	40	13.3%
Satisfaction to self-medication.	235	78.3%
Total	1977	659.0%

After sampling of 300 medical students of fourth year AIMC, 1.3% students were of age 20-26, 21.54% aged 22, 18.0% of 23, 0.7% of age 25 (Table no: 1), 55.3% of the respondents were hostelites and 44% were day scholars while 21.3% were male students and 78% were female students (Table no2), 76.7% students believe in self-medication while 23.3% don't believe in self-medication (table no4). Furthermore, 90.3% students took self-medication without prescription while 90.7% students never took (table4). 26.7% students came to know about OTC from friends and 8% from community pharmacist, 58% from doctor, 7.3% from advertisement (Table no2), 57.3% students use analgesics, 36% students use antibiotics, 6.7% use cough remedies, 65.3% students read the package inert while 34.7% students didn't read it (Table no 4). 14.7% students were not aware of the adverse effects while 85.3% were aware of adverse effects (Table no 4). 61.3% students didn't consult doctor for their condition while 38.7% students consulted doctor (Table no 4). 85% students had knowledge regarding hazards of increased dose while 15% had no knowledge (Table no 4). 18% students experienced adverse drug reaction while 82% students didn't experience any adverse reaction (Table no 4). 12% students were habitual of some kind of drugs while 88% students were not (Table 4). 61.7% students fully understand the instructions while 37.3% partially understands and 1% didn't understand at all, 45.33% took self-medication due to lack of trust, 20% due to time saving and 34.67% due to cost.

## DISCUSSION

Experience prior illness, advice from pharmacist, relatives and friends play major role in the self-medication. The participants of current study were 4<sup>th</sup> year MBBS students of AIMC Lahore. A questionnaire based cross sectional study shows that prevalence of self-

medication was 90% among study participants. The result of study was in consistent with result of study conducted among 3<sup>rd</sup> semester engineering students in Gujrat shows that the prevalence of self-medication was 88%.<sup>[1]</sup> Similar study conducted at NIMS Medical college in India reported 73.4% respondents taking self-medication for one or the other ailments.<sup>[4]</sup> In contrast study conducted in Ayder campus in Mekelle reported 43.74% respondents taking self-medication.<sup>[3]</sup> Out of total 300 participants 22% were Male and 78% Females. In contrast study conducted among engineering students in Gujrat shows 88% Males and 12% Females<sup>[1]</sup>. This study shows that lack of trust on doctors is main reason for self-medication which shows 45.33%. In contrast study conducted in Mekelle shows 1.56% reason of self-medication is lack of trust on doctors<sup>[3]</sup> while study conducted at Sharja university shows 5% reason of lack of trust on doctor.<sup>[5]</sup> Cost is another factor that cause self-medication which in this study is 34.67% while study conducted at sharja shows 16% cause of self-medication is cost.<sup>[5]</sup> Time saving is another reason of self-medication which in this study is 20% while study at sharja university shows 52% cause of self-medication is time saving.<sup>[5]</sup> According to results of our study the most common used medicines are Analgesics which is 57.33% while other medicines like Anibiotics are 36% used and Cough remedies 6.67% used. Similarly the result of study conducted in Gujrat university shows rate of Analgesics usage is 43.03%, Cough remedies 21.51% and Antibiotics is 7.27%<sup>[1]</sup>. Another study conducted in Ayder campus of Mekelle shows result which is in consistent with result of this study according to which rate of Analgesics usage is 48.44%, Antibiotics 17%, Cough remedies 12.50%<sup>[3]</sup>. The most common source of medicines used in self-medication is pharmacy store 84.7% while other source is from Friends 26.7%. This result is in consistent with result of study conducted in Gujrat university that shows 68.18% source of medicines is Pharmacy store and Friends are 27.27% source of medicines.<sup>[1]</sup>

## CONCLUSION

The conclusion from this study is that a significant number of students practice self-medication about 90%. Commonly used drugs are Analgesics and source of these drugs is pharmacy store. Common source of information for self-medication are previous prescription of doctors.

## REFERENCES

1. Patel MM, SinghUD, Sapre C, Salvi K, Shah A, Vasoya B. Self-Medication Practices Among College Students. NATIONAL JOURNAL OF MEDICAL RESEARCH, 2013; 3(3): 257.
2. Verma R K, Mohan L, Pandey M. Evaluation of Self Medication Among Professional Students In North India: Proper Statutory Drug Control Must Be Implemented. ASIAN JOURNAL OF PHARMACEUTICAL AND CLINICAL RESEARCH, 2010; 3(1): 60.
3. Gutema GB, Gadisa DA, Kidanemariam ZA, Berhe DF, Berhe AH, Hadera MG, et al. Self-Medication Practices Among Health Sciences Students: The Case Of Mekelle University. JOURNAL OF APPLIED PHARMACEUTICAL SCIENCE, 2011; 1(10): 183-89.
4. Parakh R, Sharma N, Choudhary V, Parakh KK, Parakh R, Gour P. A Comparative Study Of Self Medication Practice Among Medical & Engineering Students In A Private University In North India. WORLD JOURNAL OF PHARMACY AND PHARMACEUTICAL SCIENCES, 2014; 3(5): 933.
5. Sharif SI, Ibrahim OHM, Mouslli L, Waisi R. Evaluation Of Self Medication Among Pharmacy Students. AMERICAN JOURNAL OF PHARMACOLOGY AND TOXICOLOGY, 2012; 7(4): 136.
6. Sawalha AF. Assessment of Self Medication Practice Among University Students In Palestine: Therapeutic And Toxicity Implications. THE ISLAMIC UNIVERSITY JOURNAL (SERIES OF NATURAL STUDIES AND ENGINEERING), 2007; 15(2): 69.
7. Fadare JO, TamunoL. Antibiotic Self Medication Among University Medical Undergraduates in Northern Nigeria. JOURNAL OF PUBLIC HEALTH AND EPIDEMIOLOGY, 2011; 3(5): 219.
8. Goel DD, Gupta DS. Self-Medication Patterns Among Nursing Students In North India. IOSR JOURNAL OF DENTAL AND MEDICAL SCIENCES (IOSR-JDMS), 2013; 11(4): 14.
9. Sontakke SD, Bajalt CS, Pimpalkhute SA, Jaiswal KM, Jaiswal S R. Comparative Study Of Evaluation Of Self Medication Practice In First and Third year Medical Students. INTERNATIONAL JOURNAL OF BIOLOGICAL AND MEDICAL RESEARCH, 2011; 2(2): 562.
10. Donkor ES, Quarcoo PBT, Nartey P, Agyeman IO. Self-Medication Practices With Antibiotics Among Tertiary Level Students In Accra, Ghana. International JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 2012; 9: 3522.
11. Mehta RK, Sharma S. Knowledge, Attitude and Practice of Self Medication Among Medical Students. IOSR JOURNAL OF NURSING AND HEALTH SCIENCE (IOSR-JNHS), 2015; 4(1): 89.
12. Osemene KP, Lanikamra A. A study of The Prevalence Of Self Medication Practice Among University Students In South Western Nigeria. TROPICAL JOURNAL OF PHARMACEUTICAL RESEARCH, 2012; 11(4): 684.
13. Aqee IT, Shabbir A, Basharat H, Bukhari M, Mobin S, Shahid H, et al. Prevalence Of Self Medication Among Urban And Rural Population Of Islamabad, Pakistan. Tropical Journal OF Pharmaceutical Research, 2014; 13(4): 624.
14. Aithal S, Swetha ES, Rubina A, Kumar C. Self-Medication Among Second year Medical students In A Teaching Hospital. SCHOLARS JOURNAL OF

- APPLIED MEDICAL SCIENCES, 2014; 2(3C): 1091.
15. Shah SJ, Ahmed H, Rehan RB, Najeeb s, Mumtaaz M, Jilanni MH, et al. Self-medication with antibiotics among non-medical university students of Karachi: a cross-sectional study. *BMC PHARMACOLOGY & TOXICOLOGY*, 2014; 15(74): 1-7.
  16. Souza LAF, Silva CDD, Feraaz GC, Sousa FAFM, Pereria LV. The Prevalance and Charactercization of Self-medication for obtaining pain Relief among undergraduate Nursing Students. *REV.LATINO-AM.ENFERMAGERN*, 2011; 19(2): 245-51.
  17. Ali SE, Ibrahim MIM, Palaian S. Medication storage and self-medication behavior amongst female students in Malasiya. *Pharmacy Practice (Internet)*, 2010; 8(4): 226-32.
  18. Hussain A, Khanum A. Self Medication among university students of Islamabad, Pakistan-a Preliminary study. *Sourthern med Review*, 2008; 1(1): 14-16.
  19. Pereira CM, Alves VF, Gasparetto PF, Carneiro DS, Carvalho DGR, Valoz FEF. Self-medication in health students from two Brazillian universities. *RSBO*, 2012; 9(4): 361-7.
  20. Mumtaz Y, Jahangeer SMA, Mujtaba T, Zafar S, Adnan S. Self-medication among university students of Karachi. *JHUMHS*, 2011; 10(3): 102-5.