CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.2028241

Available online at: http://www.iajps.com ***Research Article***

KNOWLEDGE, ATTITUDE AND PRACTICE OF SELF TREATMENT AMONG MEDICAL STUDENTS AT UNDERGRADUATE LEVEL

[1]Dr. Natasha Aman, [2] Dr. Anam Fatima, [3]Dr. Ali Raza

[1]Lahore General Hospital Lahore

[2]Allama Iqbal Memorial Teaching Hospital Sialkot

[3]Lahore General Hospital Lahore

Abstract

Objective: *This study aims to determine the prevalence of use and misuse of medicines by undergraduate students of MBBS (Bachelors of Basic Medical Sciences) and the effects occurred due to use of unsupervised and unapproved prescriptions.*

Methods: *It is a descriptive, cross sectional study, conducted at King Edward Medical University, Lahore, Pakistan from March 2014 to June 2014. Total 192 students were randomly enrolled in study after taking informed written consent. A questionnaire was designed and data was collected. This study was conducted to estimate the prevalence of self-medication and its outcomes like, bacterial resistance, under treatment, poisoning, drug abuse, other side effects related to use of medicines. The mean age group of participants was 21±1 years, the range of age was from 18 years to 25 years. Data was analyzed using SPSS version 21. P-value <0.05 was considered significant.*

Results: *45.7% students took self-medication within last three months. The best determinants for self-medication between the TPB variables were attitude and intention with odds ratio of 1.15 and 1.24, respectively.*

Conclusion: *Out of 192 students, 45.7% students had self-medication within last three months. The most important predictors were attitude and intention.*

Key words: *Medical, Students, Self-medication, Practice, knowledge.*

Corresponding author:

Dr. Natasha Aman,

Lahore General Hospital, Lahore.

QR code

Please cite this article in press Natasha Aman et al., ***knowledge, attitude and practice of self-treatment among medical students at undergraduate level.,*** *Indo Am. J. P. Sci, 2018; 05(12).*

INTRODUCTION:

Self-medication is defined as taking medicines without any prescription advised by registered medical practitioner (RMP), in a dose which either under treats the disease or leads to complications due to overuse of the drugs. This practice has been increased amongst the students and general public during the past few decades and has given rise to complications like drug abuse, microbial resistance etc. *Lie X, et al.* in a study conducted at China explained the reasons of mal-practice amongst general public, it was concluded in the study that 45% population thought the severity of illness was not enough to consult a doctor, 23% had the thought of not getting well even after RMP consultation, 12% avoided doctors' opinion due to burden of daily workload, 15% gave costly treatment as the reason for preferring self-medication over RMP consultation [1].

The KAP study about the self-medication practice was conducted in Eastern India in 2017 by *Ghosh A, et al,* in which the knowledge, attitude and practice about the antimicrobial resistance occurred due to mal-prescription was estimated amongst medical students. It was concluded that almost 80% of students had well knowledge about the microbial resistance but despite of that they were preferring self-medication. Remaining 20% students had little knowledge about it. However pharmacology training regarding misuse of anti-bacterial and other drugs must be done at undergraduate level to reduce the self-medication practice and to avoid the danger to fall short of effective antimicrobials in future [2].
94.5% of rural population in Bangladesh is practicing self-medication [3]. Similar practice was studied by *Holloway K, et al.* amongst university students in United Kingdom and the result was 90% practicing self-medication. The drugs most commonly in use were alcohol, cigarettes, opioids, pain-killers, etc. [4].
[5]By considering increasing rate of self-medication amongst people the need was felt to estimate its prevalence amongst Pakistani students and to organize programs which can increase the level of awareness about hazards caused by self-medication, so that major complications and off medical use of medicines can be prevented.

METHODOLOGY:

192 students were enrolled in the study following random selection from each year of 5 years MBBS program at the King Edward Medical University, Lahore, Pakistan with probability of 20% attrition. A questionnaire was designed and was provided to all participants after taking informed written consent. The no ethical issue certification was signed from the review and ethical board, research department King Edward Medical University.

The questionnaires which were not completely filled were excluded and remaining complete questionnaires were considered the part of study. There were 175 complete questionnaires, thus response rate was 91 percent. The purpose and objectives of research were explained to all the participants and the identity of student was not revealed by making questionnaires anonymous. Those students who showed unwillingness to participate were excluded and it was made sure that no student who is participating in study was suffering from any illness at the time of data collection.

The questionnaire was divided into two sections. First section was related to information about the age, sex, year of under-graduation, marital status, living with parents or not, any medicine used during last three months, without proper prescription from RMP. The questions about the assessment of behavior of the students were assessed by defining a scoring scale according to previous studies conducted and literature published as reference. The questionnaire's reliability was assessed by Cronbach's alpha.

Following questions were designed to assess the attitude of students; I do it in order to save money. The Cronbach alpha was 0.7 for first question. Second reason asked was because my friends also do the same. Cronbach's alpha coefficient was 0.8. Taking self-prescribed medicines in disease is normal for me. Cronbach's alpha scoring was 0.7 and one more question was inquired which was about the behavior towards self-medication in case of illness in future, Co-efficient was calculated to be 0.8. Data was analyzed by using SPSS 21 version. Statistical tests were applied and p-value of <0.05 was considered significant.

RESULTS:

There were total 192 students enrolled in study in the start of data collection. After collecting data and excluding incompletely responded questionnaires, 175 students were left. The response rate was 91%. The male to female ratio of participants was 72 out of 175 and 103 out of 175, respectively which was 41.1% and 58.9%. The age group was from 18 years to 25 years with mean age of 21±1 years.
The stratification according to marital status was 3% married and 97% single. 45.7% students (80 out of 175) had self-medication within last 3 months of data

collection. The relationship of biodata information provided by students was made with the attitude towards the self-medication and no statistically significant association was found with sex, marital status, age, living with parents or not. However, the prevalence was higher in first and second year students than in last three years of MBBS students.

Table: 1-Variables to predict self-medication on basis of bivariate correlation analysis.

	mean	range	X^1	X^2	X^3
X^1-Attitude	14.4	5-25	1		
X^2-Subjective norms	15.7	5-25	.16	1	
X^3- perceived behavioral control	10.1	3-15	.16	-.37	1
X^4-behavioral intention	9.8	4-20	.09	.57	-.53

The best determinants for self-medication between the TPB variables were attitude and intention with odds ratio of 1.15 and 1.24, respectively. [Table: 2]

Table: 2-logistic regression analysis for TPB variables.

variables	B	SE	Odds ratio	95% Confidence interval (lower)	95% confidence interval (upper)	p-value
Behavioral intention	.21	.04	1.24	1.13	1.35	.001
attitude	.14	.04	1.15	1.05	1.26	.001

DISCUSSIONS:

It has been made quite obvious in the abovementioned results that prevalence of self-medication amongst undergraduate medical students is 45.7%. Different percentages have been found out by taking different sample sizes and study populations. The reasons behind such mal practice are numerous. *Prosek E. A, et al,* in his research concluded the reason for prevalence of using various CNS stimulants and alcohol to enhance their alertness and studying skills. It is a common attitude of students to use the CNS stimulants for such off medical purpose [7].

Arria A.M, et al, also studied the use of self-advised CNS stimulants for improving learning capabilities amongst the students, 28.6% students were strong believers of the myth that using CNS stimulants could help them in achieving good grades in examinations [8].

A survey of medical specialists was done in Canada in 2017, in which the competency of medical students about prescribing the drugs was estimated 23.4% were found out to be unable to prescribe medicines in required and correct dosage, 44% were able to perform it under close monitoring and supervision, 73% sample was a strong believer of the fact that if improved and close supervision is provided then percentage of those who have accurate knowledge about medicines and quality of prescriptions can be raised [9].

Seam O.R, et al. studied the self-medication practices amongst the pharmacy students. Such practice was found to be quite common [10].

By keeping in view the abovementioned discussion and results obtained from the understudy population, the need to start awareness programs about the hazards and long term loss regarding effectiveness for certain drugs regarding their therapeutic purposes is strongly felt [11]. It is duty of medical educationalists and pharmacists to provide better knowledge and awareness not only to students but to general public as well, so that non-medical un-approved use of medicines can be avoided. Such steps would help us to reduce the bacterial resistance rate, addiction rate and the complications related to misuse of drugs

CONCLUSION:

Out of 192 students, 45.7% students had self-medication within last three months. The most important predictors were attitude and behavioral

intention.

REFERENCES:

1. Lie X, Jiang H, Liu C, Ferrier A, Mugavin J. Self-medication practice and associated factors amongst residents in Wuhan, China. *International Journal of Environmental Research and Public Health* 2018; 15(1): 68.
2. Ghosh A, Das S, Dasgupta R. Knowledge, attitude and practices about anti-microbial resistance and appropriate use of anti-microbial agents among MBBS students of a medical college hospital in Eastern India. *International Journal of Basic and Clinical Pharmacology*. 2018; 7(3).
3. Mahmud S, Mahmud Ul Haq AZ, et al. Perception of self-medication style and and related logistics of rural peoples in Bangladesh. *International Journal of Public Health Research* 2018; 6(1): 1-4.
4. Holloway K, Bennet T. Characteristics and correlates of drug use and misuse among university students in Wales, a survey of seven universities. *Addiction Research and Theory*. 2018; 26(1): 11-19.
5. Papazisis G, Tsakiridis I, Pouzitaki C, et al. Non-medical use of prescription medications among medical students in Greece; prevalence of and motivation for use. *Substance use and misuse*. 2018; 53(1): 77-85.
6. Juibari TA, Mirzaei-Alvijeh M, et al. Prevalence and socio-cognitive determinants of self-medication among college students. *IJABR* 2016; 7(4): 1540-1545.
7. Prosek E. A, et al. Prevalence and correlates of stimulant medication misuse among the collegiate students. *Journal of College Students Psychology* 2018; 38(1): 10-22.
8. Arria M.A, Geisner I.M, et al. Percieved academic benefit is associated with non- medical prescription stimulant use among college students. *Addictive behaviors*. 2018; 76: 27-33.
9. Liu J, Wong S, et al. Prescribing competency of medical students; national survey of medical education leaders. *Journal of Population Therapeutics and Clinical Pharmacology*. 2018;25(1):18-24.
10. Seam O.R, Bhatta R, Saha B. L, Das A, Hossain M. M, Naimud Din S. M, et al. Assessing the perception and practice of self-medication among Bangladeshi undergraduate pharmacy students. *Pharmacy* 2018; 6(1).
11. Vie T. L, Hufthammer K.O, Holmen T. L, Meland E, et al. is self-rated health in adolescence a predictor of prescribed medications in adulthood? Findings from the Nord Trondelag Health Study and Norwegian Prescription database. *SSM- population health* 2018; 4: 144-152.