

Patterns of Self-Medication Misuse among University Students

¹Ahmed Mostafa, ²Alaa Hany, ³Esraa Ayed, ⁴Eman Ali, ⁵Bassant Fathy, ⁶Dina Khalil
⁷Sohaila Soliman, ⁸Shrouk Hasan, ⁹Shymaa Abd El razek, ¹⁰Marina Emad,
¹¹Mohamed Mousa

Medical students, suez canal university, Egypt

Abstract: Self-medication, a form of self-care, is a topic of growing interest among researchers and health policy makers, owing to a plethora of advantages and disadvantages associated with its practice in general population. There is paucity of adequate information about this issue, especially in developing countries; there is much public and professional concern about the irrational use of drugs. The prevalence rates are high all over the world; up to 68% in European countries, while much higher in the developing countries with rates going as high as 92% in the adolescents of Kuwait. The outcome of this study will provide data regarding reasons, public awareness and safety aspects of self-medication among Suez Canal university students.

To reduce of consequences of medication misuse through describing pattern of self-medication misuse. To determine the prevalence, attitude and knowledge of self- -medication amongst Suez Canal University.

This cross-sectional, study was conducted from March, 2014. A Simple random sample was taken from University student, males and females at Faculty of Commerce, Suez Canal University. Data was collected by an interviewer-administered questionnaire, coded and entered into the Microsoft Office Excel program (2010). IBM SPSS Statistics (20) Program was used for data analysis. From the 90 participants (mean age=26 ± 18 years) the prevalence of self-medication was 91.1%.Self-medication misuse is most common in rural (96.15%) than in urban (89%). In our study we found that males who use medicines without prescription 90% ,while females 94.8% .the most common reason for self-medication was (44.4% used the medicine for an urgent purpose. 42.4 use it because of laziness. 6.7% use medicines without prescription because the financial status prevent them from going to the doctor).while the most common used medicines without prescription are painkiller and antibiotics , we also found that 28.9%of the people having medicines without prescription had side effects.65.6% had no side effects, the common side effects were headaches and malaise and the most common reason was to be prescribed by a doctor or a pharmacist previously, 21.1% was to be described by someone,10% was to be self-prescribed. The prevalence of self-medication was high among rural females This indicates the importance of education and awareness. The study also revealed confidence of the doctor's and pharmacist's opinion or advice, the financial status also prevents them from going to the doctor. Although generally people have knowledge, but more awareness on self-medication is needed.

Keywords: self- medication misuse, university student.

1. INTRODUCTION

We must usually say never take medicines without consulting the doctor because it may be harmful to your health. Medicines are the basic necessity of every individual after food, clothing, and shelter. Medicines have become a part of our life because everyone of us needs them at least once in the life. Any medicines whether natural or allopathic, should be taken only after consulting with the doctor. Medicines generally have side effects that you may not know, but doctor would know them. Thus, doctor can suggest you what precautions you should take to avoid these side effects. Also, he may give you some other medicines that will help to reduce the adverse effect of the medicine. So, always keep in mind to consult the doctor before you start any medication.

Medicines are there to combat the illnesses and improve your health, but if you misuse them then your health is considerably damaged. There are few medicines that are okay to be taken without the doctor's prescription like vitamin and protein supplements, but we would even say you should ask doctor about the dosage. So that, he would study your body thoroughly by the medical tests and thus a perfect dosage will help you in getting the desired result within short span of time. If you take these supplements on your own then you will not be having the knowledge about their dosage that is suitable for you and thus you may not get the desired effect. So, always take the doctor's advice for any time of the medicine usage.

Many people feel shy to visit to the doctor when they suffer with the sexual health problems. They find it difficult to share even with their partner. But, this is what makes them more depressed and due to the negligence the problem even gets more complicated.

So, they buy the medicine from online pharmacies and just take them without doctor's permission. They feel good after the intake of the medicines, but later on they start facing the side effects. Even some people get addicted to those medicines. Thus, this is where doctor plays a role. Doctor can make you aware that this medicine can cause addiction so he may guide you on how to take it and for how much time. Doctor may also help you to get the better medicine that what you are taking on your own. So, don't feel shy to tell about your sexual health problem to doctor because this may make your problem more severe.

Every disease has got its peculiarities that we cannot guess on our own. Even sometimes doctors can not guess anything on the basis of external symptoms. Then here the medical laboratory test comes in the picture. With the help of the medical tests doctor is able to conclude that which disease you are suffering from. This helps him to diagnose you in a better way. So, he prescribes you the medicines accordingly.

We would suggest that take the medicine that are prescribed by the doctor as per the dosage suggested by him, don't take more or less than that. Doctors are there to help us so believe in them and you would certainly be able to combat the illnesses easily.

Some medicines are very much harmful to health, so if you take them then they affect your health adversely. Doctors know such medicines, so they give some other medicines along with them to reduce the effect of these medicines. We should understand that we are not the doctors, so we should not take the medicines on our own. Doctors have studied for about 7 years to understand our whole body system and even by the experience they have understood that which medicines should be given when and how to the patient. So, this is my genuine request to all the people to take the medicines only after consulting with the doctor. Finally, we want to reduce the consequences of medication misuse through describing the pattern of self-medication misuse.

2. SUBJECTS AND METHODS

STUDY DESIGN:

Cross-sectional studies will be conducted to describe the pattern of drug misuse among university students.

STUDY SETTING:

The study had been set at Faculty of Commerce, Suez Canal University, Ismailia governorate.

STUDY POPULATION:

University students, males and females.

Exclusion Criteria: Medical students.

SAMPLING:

Sample size:

90 samples from both females and males, sample size was calculated using tables of sample size, reference (designing clinical research) REF.

3. RESULTS

Cross-section study was conducted among university students of Suez Canal University describing the pattern of self-medication misuse; data was collected from 90 students from Faculty Of Commerce by self-administered questionnaire.

The results were as follows:-

Frequency distribution of self-prescription of medicines of participants according to gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	32	35.6	35.6	35.6
Female	58	64.4	64.4	100.0
Total	90	100.0	100.0	

35.6% of the participants were males & 64.4 of them were females.

Frequency distribution of self-prescription of medicines of participants according to gender & usage of medicines without prescription

			Usage of medicines without prescription		Total
			Yes	No	
Gender	Male	Count	27	5	32
		% within Q4	32.9%	62.5%	35.6%
	Female	Count	55	3	58
		% within Q4	67.1%	37.5%	64.4%
Total	Count	82	8	90	
	% within Q4	100.0%	100.0%	100.0%	

Nearly equal percentage (about 90% males & 94.8% females) who use medicines without prescription.

Frequency distribution of self-prescription of medicines of participants according to address & usage of medicines without prescription

			usage of medicines without prescription		Total
			Yes	No	
Address	Urban	Count	57	7	64
		% within Q4	69.5%	87.5%	71.1%
	Rural	Count	25	1	26
		% within Q4	30.5%	12.5%	28.9%
Total	Count	82	8	90	
	% within Q4	100.0%	100.0%	100.0%	

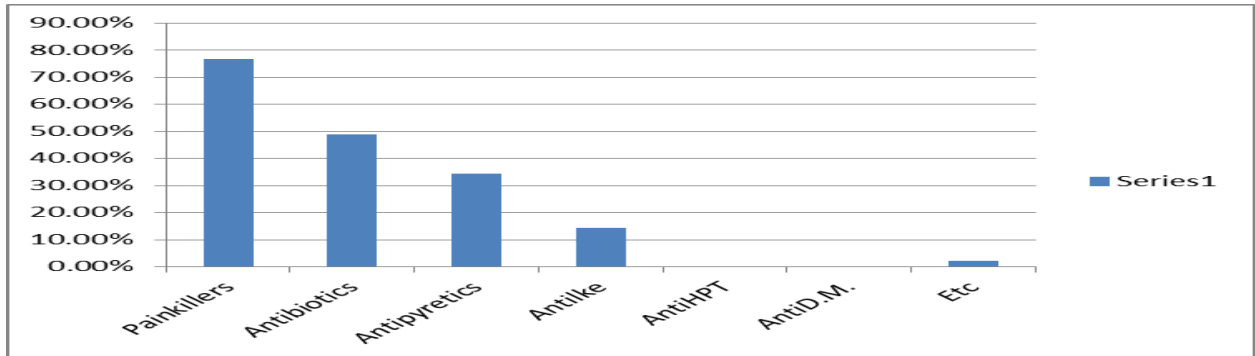
Self-medication misuse is most common in rural(96.15) than in urban (89%).

Frequency distribution of self-prescription of medicines of participants according to usage of medicines without prescription

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	82	91.1	91.1	91.1
No	8	8.9	8.9	100.0
Total	90	100.0	100.0	

91.1% of the sample size have taken medicines without prescription.

Frequency distribution of self-prescription of medicines of participants according to Most common used medicines without prescription



Among the self-prescribed used drugs painkillers were the most frequently used (76.7%) Other medicines represent 2.2% such as :(Vitamins, drugs for dermatological diseases).

Frequency distribution of self-prescription of medicines of participants according to persons who had side effects

	Frequency	Percent	Valid Percent	Cumulative Percent
No self-prescribed of madicines	5	5.6	5.6	5.6
Yes	26	28.9	28.9	34.4
No	59	65.6	65.6	100.0
Total	90	100.0	100.0	

28.9% of the people having medicines without prescription had side effects.65.6% had no side effects.

Frequency distribution of self-prescription of medicines of participants according to justifications for not going to the doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No answer	78	86.7	86.7	86.7
	laziness	5	5.6	5.6	92.2
	Culture does not allow them to go to the doctor.	2	2.2	2.2	94.4
	Studying &work	1	1.1	1.1	95.6
	Hating doctors	1	1.1	1.1	96.7
	Laziness& Culture does not allow them to go to the doctor.	2	2.2	2.2	98.9
	Laziness, studying &work	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

5.6% because of laziness.2.2% not being allowed to go to the doctor.2.2 for the previous 2 reasons. other reasons:(heating doctors, studying and work).

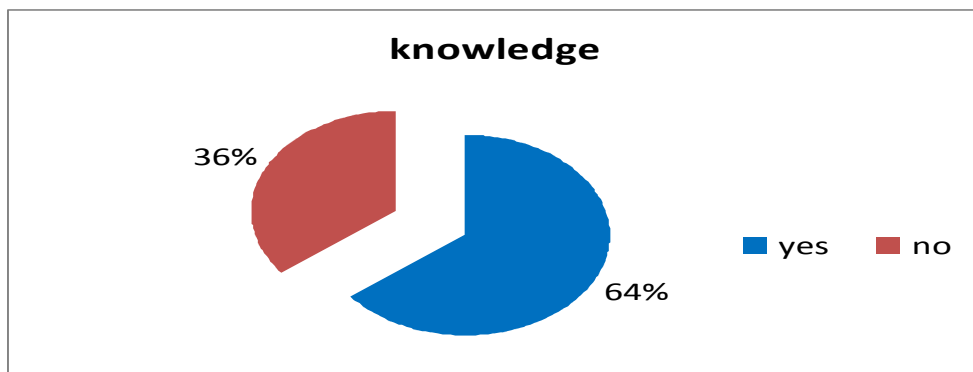


Figure (2): Frequency distribution of participant's knowledge about hazards of self-medication misuse

About two third of the study participants (64.4%) know that self prescription of medicine can be hazardous.

4. DISCUSSION

According to sex previous questionnaires that had been carried out in different countries all over the world in India, Pakistan, Denmark, Nigeria and Japan to describe the pattern of self-medication and its prevalence . We noticed different variations in the results.

In this chapter we will discuss these variations:

1-THE PREVALENCE OF SELF-MEDICATION:

In Egypt-Suez Canal University

91.1% of the sample size has taken medicines without prescription.

From this percentage Males who use medicines without prescription present 90% ,while females 94.8% .

The sample was taken from students of faculty of commerce-Suez Canal University-

It has been found that Self-medication misuse is more common in rural(96.15%) than in urban(89%) .

In India:

Self-medication was found to be 55.92% in the sampled population.

Prevalence was significantly more in the sampled females (59.8%),

Than in males (48.9%).

The sample had 257 (33.8%) illiterates and 66.2% literates, majority [399, 52.5%] of the sample having studied up to high school. Majority

(69.3%) of the subjects were of lower economic strata earning less

Than Rupees 6000 (INR).

In Pakistan:

Self medication was found to be

76% (n=435).

2- THE DRUGS THAT WERE MISS-USED:

In Egypt-Suez Canal University

The main causes of this usage were as follow:

(44.4%) used the medicine for an urgent purpose.(42.4) use it because of laziness.(6.7%) use medicines without prescription because the financial status prevent them from going to the doctor .and there are other motivations like:(effectiveness of the medicine, good results before Ignore feeling pain,

The most used drugs where arranged as follow:-

Among the self-prescribed used drugs painkillers were the most frequently used (76.7%)

Other medicines represent 2.2% such as:(Vitamins ,drugs for dermatological diseases).

In India:

Most respondents used self-medication for trivial ailments like fever,

Aches , allergies, cough, and diarrhea. Majority of the respondents (71.3%) used self-medication within 7 days of start of ailment.

Type of drug participants had used in last 6month (multiple responses):

Pain Relievers is the most common drug had used in last 6 month among people about 43.3%

Follow it Cough Remedies about (21.51%) and other drugs like Creams, antimicrobials, anti allergy drug

In Pakistan:

The most common symptoms that led students to indulge in self-medication were headaches (72.4%), fever (55.2%) and flu like symptoms (65.5%) and hence painkillers (88.3%), fever relieving medication (65.1%), anti-allergies (44.1%) and antibiotics (35.2%) were among the most commonly used drugs. The

Frequency of use of these medicines is given in antibiotics, anti-allergies and anti-paretic's were used 2-3 times a year while analgesics were used every few months in majority of the cases.

3- THE MOST COMMON EXPLANATIONS FOR SELF-MEDICATION:

In Egypt-Suez Canal University:

The causes of self- medication were variable among the sample as follow:-

(14.4%) of the sample do not go to the doctors due to personal conditions that where (5.6%) because of laziness (.2.2%) not being allowed to go to the doctor. (2.2) for the previous 2 reasons. Other reasons :(heating doctors, studying and work).

The most common reason was to be prescript by a doctor or a pharmacist previously, (21.1%) was to be described by someone,(10%) was to be self-prescript

In India:

Majority of respondents practicing self medication cited monetary Constraints (40.5%) as the main reason, other reasons being lack of Time (19.3%), lack of accessibility to health care facility (6.1%), Emergency use (13.1%), and minor ailments (8.8%).

In Pakistan:

The most common factors that led to it were "previous experience with similar symptoms" (50.1% n=218) and self perception of "trivial nature of the problem" (48.3% n=210)

4- THE COMMON SOURCE OF SELF-MEDICATION:

Patients Response regarding why they do not see a doctor:

About 20.3% see that is better to treat the problem with themselves, about19.6% of people want to see if OTC medicines work for them, about17.4% of people see that if they rest it will be okay. And about 13.8% of people see that it is very cost,

In India:

Most respondents procured drugs from local pharmacy (62.4%), while some used leftover old drugs (24.9%) and some from their friends or neighbors (12.7%). For procuring drugs, most of the respondents described their symptoms (57.9%), some others showed old drug packs (13.2%) or old prescriptions (11.3%). Very few mentioned the name of drug (10.6%) or the class of drug they want (7%). Most of the respondents preferred allopathic medicines, either alone (47.3%) or along with drugs of other systems (24.5%). Proportion of people preferring Ayurvedic medicines and Homeopathic medicines were 22.8% and 5.4 % respectively. The respondents got information about drugs through local Pharmacists (42.1%) and previous consultation (25.4%) with a doctor for similar complaint. Other interesting sources were friends (13.2%), television (7.1%) and internet (3.5%). An alarming finding was that only 21.4% of the respondents checked for expiry date of the drugs before using them.

In Pakistan:

Students mostly obtained these drugs from a pharmacy (64.6%) or/and stocks kept at home (64.4%) or from friends (9.7%).

Two hundred and forty-seven students (43.3%).

5. RECOMMENDATIONS

Our Recommendations are the following:

1. Awareness and education regarding the implications of self medication.
2. Strategies to prevent the supply of medicines without prescription by pharmacies.
3. Strict rules regarding pharmaceutical advertising.
4. Strategies to make receiving health care much less difficult.
5. Larger studies are needed to confirm the findings of the present study, which will help to expand the population knowledge base.

REFERENCES

- [1] Multicenter study on self-medication and self-prescription in six Latin American countries. Drug Utilization Research Group, Latin America. Clinical Pharmacology.
- [2] Mudur, G. Abuse of OTC drugs rising in South Asia. British Medical Journal, 318: 556 (1999).
- [3] Hughes G.F., McElnay J.C., Hughes C.M., McKenna P. Abuse/misuse of non-prescription drugs. Pharmacy World and Science, 21(6):251 -255 (1999).

- [4] McLaughlin, J.K., Lipworth, L., Chow, W.H. et al. Analgesic use and chronic renal failure: a critical review of the epidemiologic literature. *Kidney International*, 54(3): 679-686 (1998).
- [5] Prasad S. Good Reasons To Stop Self-Medication. September 27, 2013. Available from: [http:// www.boldsky.com/health/ wellness/2013/good-reasons-to-stop-self-medication-035498.html](http://www.boldsky.com/health/wellness/2013/good-reasons-to-stop-self-medication-035498.html).
- [6] Murray k. Self-Medication. October 10, 2010. Available from: [http://www.guardian.com.sg/article/health-tips/miscellaneous /self-medication](http://www.guardian.com.sg/article/health-tips/miscellaneous/self-medication).
- [7] Nazir G. An assessment of self medication practice in Puncakalam, Kuala Selangor: November 2010.
- [8] Douglas C. Throckmorton, M.D. FDA's Commitment to Reducing Prescription Drug Abuse and Misuse. April 25, 2012 Available from :<http://blogs.fda.gov/fdavoices/index.php/2012/04/fdas-commitment-to-reducing-prescription-drug-abuse-and-misuse>.
- [9] Robert J. FDA's Role in Preventing Prescription Drug Abuse .September 13, 2005 Available from: [http:// www.fda.gov/ news events/testimony/ucm112718.html](http://www.fda.gov/news_events/testimony/ucm112718.html).
- [10] Goossens H. Antibiotic consumption and link to resistance. *Clinical Microbiology and Infection*, 2009, 15(Suppl. 3):S12–S15.
- [11] Van der Geest S, Hardon A. Self-medication in developing countries. *Journal of Social and Administrative Pharmacy*, 1990, 7(4):199–204.