

*Short Communication***Self-Medication amongst the university students of Multan, Pakistan- A questionnaire based survey****Samman Chughtai^{1*}, Mahtab Ahmad Khan¹, Muhammad Zia ul Haq², Ahmad Shahzad³, Farwa Hussain¹, Farzana Nazar¹, Muhammad Anwaar Chughtai¹**¹ Faculty of Pharmacy, Bahauddin Zakariya University Multan.² Faculty of Pharmacy, The Islamia University, Bahawalpur.³ Department of Statistics, Bahauddin Zakariya University, Multan**ABSTRACT**

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Self-medication is a common incidence in the world today. This study aims to evaluate self-medication among university students of Multan, Pakistan. This randomized cross sectional study was carried out in Bahauddin Zakariya University, Multan during December 2015- January 2016. A sample size of 200 students was randomly selected. Response rate was 90% (n=182). The prevalence of self-medication among the students was determined to be 83%. There was difference in perception of pharmacy students and students of other professions. Most common condition in which students did self-medication was headache (49.66%; n=75). Students also showed tendency of self-medication in case of herbal and essential oil products (46.35%). Awareness concerning insecurity and benefits of self-medication must be spread among students to avoid the complications of self-medication.

Keywords: Self-medication, symptoms, students, self-care**INTRODUCTION:**

Humans experience disease in their daily life. Every person respond to it differently. This response is known as self-care. Self-medication is a phenomenon in which person tries to use medication according to his own belief and knowledge and mostly do not consult prescriber for that because he do self-medication according to his past experience with that disease and medicine he used. (Bennadi, 2014)

Self-medication includes taking medicine without prescription (OTC), sharing medicine with relatives or friends and/or using left-over medicines stored in kitchen cabinet, refrigerator or medicine cabinet, which might be harmful (L De Bolle et al, 2008). It has become phenomenon common practice that patients demand medicines available in the market without proper prescription (Blenkinsopp et al, 1995).

World health organization (WHO) appreciates the crucial role of self-medication in curing disease but WHO also reported problems related to uncontrolled self-medication like inadequate dosing, incomplete treatment-courses and inappropriate use of medicines especially to anti-microbial drugs (WHO, 2011). Wrong self-medication leads to adverse effects, increased side effects, loss of resources and resistance in case of anti biotics (WHO, 1995). It can also cause tolerance, hindrance in diagnosis and problems associated with over- and/or under-dosing.

Self-medication is prevalent in all populations regardless of occupation, gender and age. Students are also prone to it. The incidence of self-medication in students has been studied many times before in different countries including Pakistan (Aljinovic et Al 2009, Mumtaz et al 2009, Abay and amelo 2010). Thus present study was conducted to evaluate self-medication in university students of Bahauddin Zakariya University, Multan, Pakistan.

METHODOLOGY***Corresponding Author:** Saman Chughtai**Address:** Faculty of Pharmacy, Bahauddin Zakariya University Multan**Email address:** youngpharmacist1@gmail.com

Study location

The study was conducted in Bahauddin Zakariya University (BZU), Multan, Punjab, Pakistan in December 2015-January 2016.

Study design

It was randomized, cross-sectional questionnaire based study conducted in students of different departments of university as well as the students of pharmacy department. Sample of 200 students was taken on the basis of scientific randomization. One hundred students were included from pharmacy department and 100 from all other departments randomly. Data collection was performed by using a questionnaires. The purpose of the study was explained to students and questionnaires were get filled separately to avoid mutual influence and bias. The questionnaire consisted of two parts: First part consisted of demography while second part included question about self-medication.

Statistics

The data was collected and analyzed through SPSS version 20. Descriptive analysis was done by calculating frequencies and percentages and results were drawn by Z-test at 0.05 level of significance.

RESULTS AND DISCUSSION

Response-rate was high so this study can be used to approximate the students behavior in Multan regarding self-medication but mutual dependence could not be excluded completely.

Response rate was 90% and 182 students out of 200 participated in this study. Among them 94 students were from pharmacy department whereas 88 students were from other departments. There were 73(39.77%) females and 110(60.43%) male students.[Table 1]. The prevalence of self-medication was determined to be 83% in students of BZU, Multan. They belong to various age groups [Table 1]. Additionally difference between pharmacy students and students of other departments was determined. There was non-significant difference between the genders

regarding self-medication ($p < 0.001$). Most common symptom for self-medication among students was headache ($n=75$, 49.66%). This was followed by common cold ($n=19$, 12.58%), digestive disorder ($n=16$, 10.59%), fever ($n=16$, 10.59%), body aches ($n=14$, 9.27%) and skin disorder ($n=12$, 7.94%) (Table 2).

Out of 182 students, 46.35 % students responded in positive for the use of herbal, homeopathic and essential oil products [Table 3]. 49.66% students said that they considered effects of medicine before self-medication out of which 93.33 % students were of pharmacy department [Table 3]. 26.9 % students were used to take medicine from medicine cabinet (Table 3).

Table 1: Data of respondents having self-medication ($n=181$)

	Parameter	Percentage (%)
Gender	Male	60.43
	Female	39.77
Age	18 to 20	25.27
	21 to 23	36.26
	24 to 26	20.87
	Above 26	17.58

Table 2: Self-medication response in positive for different conditions

Sr.No.	Conditions	Response percentage %
1	Headache	49.66
2	Common cold	12.58
3	Digestive disorder	10.59
4	Fever	10.59
5	Body aches	9.27
6	Skin disorder	7.94
7	Cough	7.94
8	Stress	3.9
9	Weight loss	3.31*

*All female students

Table 3: Other considerations

Question	Response %
Use of herbal product	46.55
Consideration of adverse effects	49.66
Medicine taken from medicine cabinet	26.9

DISCUSSION

The majority of students participated were males. Self-medication among students seems to be a common practice for non-serious and minor ailments.

Prevalence of self-medication in university students of Multan was more than students of Karachi (Mumtaz et al, 2009) and less than students of Abbotabad (Hanif ullah et al, 2013).

Both males and female students were involved in self-medication. So study tells that self-medication is not a gender specific phenomenon in university students of Multan. It has been noted that headache was the most common symptom for self-medication in students. This leads to the question on understanding of students about the type of headaches and its treatment. Common cold, digestive disorders, fever, skin diseases and body pains were also the symptoms for self-medication which tells that student's perception of these symptoms was that these were minor and non-serious symptoms. Over all pharmacy students due to their medicine related knowledge were more prone to self-medication as it has been found in many previous studies (Abay and amelo, 2010). Students also showed positive response for herbal and homeopathic medicines. Use of medicine cabinet for self-medication was also prevalent in students. Female students showed little bit more adherence to the use of self-medication for weight lose.

Self-medication have many risks but it can have some advantages also as shown in the study (Hughes et al 2001). Major benefits of self-

medication were found to be decrease in health care cost for the Government and the patient and saving in medication bill. Self-medication also gives little bit freedom to patient in case of non-prescription medicines. Appropriate and effective self-medication can help prescribers to reduce contact time with patients who have minor symptoms (Lowe et al, 1995).

In Europe and other developing countries, in spite of the strict rules regarding prescription only medicine, some medicines like anti biotic are often self-medicated(Vannanen et al, 2006) but in Europe a whole industry known as Association of the European Self-medication Industry (AESGP) helps a lot in the regularization and surveillance of self-medication (Association of the European self-medication industry, 2016).

Pharmacist especially community pharmacist can play a major role in the self-medication as given per the WHO guidelines (WHO, 1994). Self-medication can be used efficiently if we determine the ratio of risks and benefits of self-medication in different age groups as well as different medications (Montastruce et al, 1997). In this way it would be a positive phenomenon in health care system

CONCLUSION

Self-medication is strikingly high in university students in Pakistan and becoming a concerning phenomenon day by day. Knowledge and education about uses and abuses of self-medication should be spread among students to avoid the negative impacts of self-medication. Regulations regarding sale and purchase of medicine without prescription should be strict to stop over usage of medicine. Over the counter medicine should also be regulated properly. Control of practice of self-medication can only be done through mass education. University education can provide better awareness to students regarding self-medication.

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