

Prevalence of Self-Medication Among Undergraduate Students of Life Sciences at BUITEMS

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ABSTRACT

The current learning concludes the prevalence of Self-medication among undergraduate students of life sciences at BUITEMS and is found to be relatively high. In addition, a strong positive association between easily availability of drugs without prescriptions from nearby pharmacies and self-medication was identified. Besides factors like self-diagnosis of diseases, previous illness experience with similar symptoms, less severity of disease etc also contributes towards self-medication practices by the students. Another interesting finding of our studies revealed that inspite of a high percentage of Life sciences students i.e., 68% were aware of the effects/risks of the used drugs but still practice self-medication and avoid consulting doctors for their medical problems. Thus, awareness and education regarding the implications of self-medication is among university students is must and strict policies could be introduced to regulate the procurement of medications and prohibit their purchase without a prescription through urging pharmacists to dispense them under supervised regulations.

INTRODUCTION

Self-medication is an important health concern in both the developed and non-developed countries. People consider it as an important component of self-care [1]. General population, medical student's non-medical students everyone is involved in practicing self-medication. While practicing self-medication everyone has to be very careful. Self-medication means taking care of one's health using traditional or modern medicines [2,3]. Using medicines without any consultation has its both positive and negative consequences [4]. Practice of self-medication has been increasing day by day in many countries. People usually take advice from friends, neighbors, pharmacists, and family members regarding self-medication [5,6] or they use internet to find the suitable medicine that they think would help with their problem [7]. However, many therapeutic and diagnostic activities are wrong, and they end up worsening their situation, but people prefer independent and decision-making roles by themselves [8,9]. Therefore, the main aim of this research study was to find out the prevalence of self-medication among Life sciences undergraduates at BUITEMS and also to identify those factors that contribute towards such practice. However, keeping this in mind that this study was based on self-reported questionnaire so there could be under or over reporting of self-medication practices among the undergraduate students of Life sciences. In addition to that sample size was not fairly large to generalize the result.

MATERIALS AND METHODS

This study was a cross sectional study, directed among undergraduates studying in different departments of Life sciences i.e., microbiology, biotechnology and environmental sciences at BUITEMS, Quetta, Pakistan. The students were selected at random and informed consent was obtained from these students keeping the sample size 100. Data was collected with the help of a self-developed self-medication questionnaire which consisted of two sections:

Section 1- Demographic data i.e., gender, department, marital status, residence status (with family/hostel accommodation) etc

Section 2- Specialty questions about self-medication which includes questions related to self-medication practices, place/source of obtaining medication, common symptoms experienced prompting self-medication, reasons behind taking medicines without consulting a physician, common problems for which students rely on self-medication etc

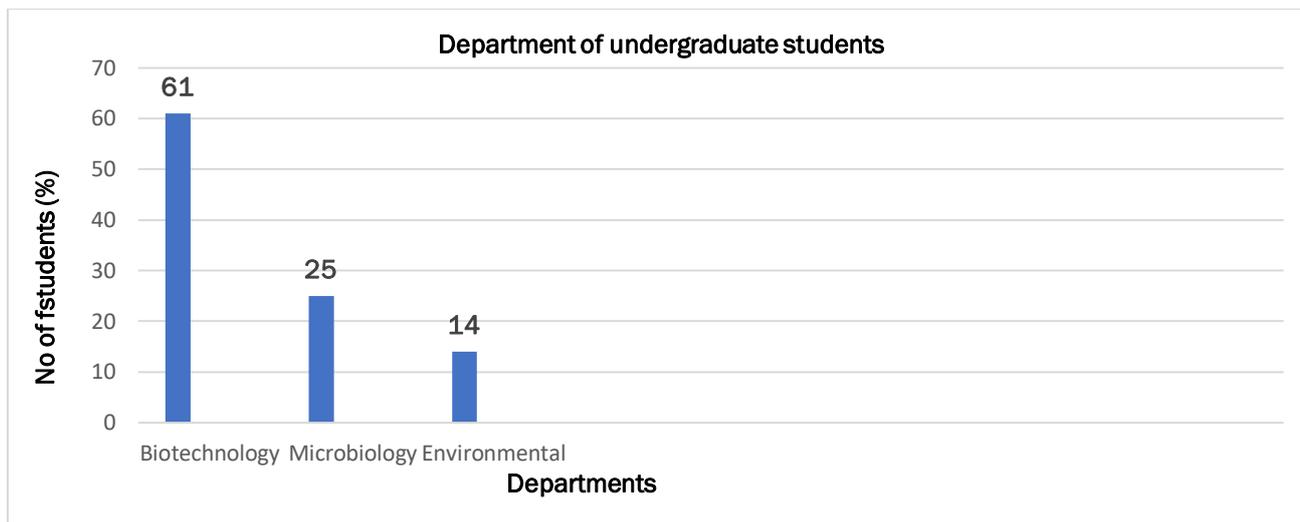
By means of Microsoft excel 2013; statistical analysis of the data was done.

RESULTS

Table 1 and Graph 1 depict the respective departments of the undergraduate students who participated in this study.

S.no	Departments	No of students (%) (n=100)
1	Biotechnology	61
2	Microbiology	25
3	Environmental Sciences	14

Table 1. Departments of undergraduate students.

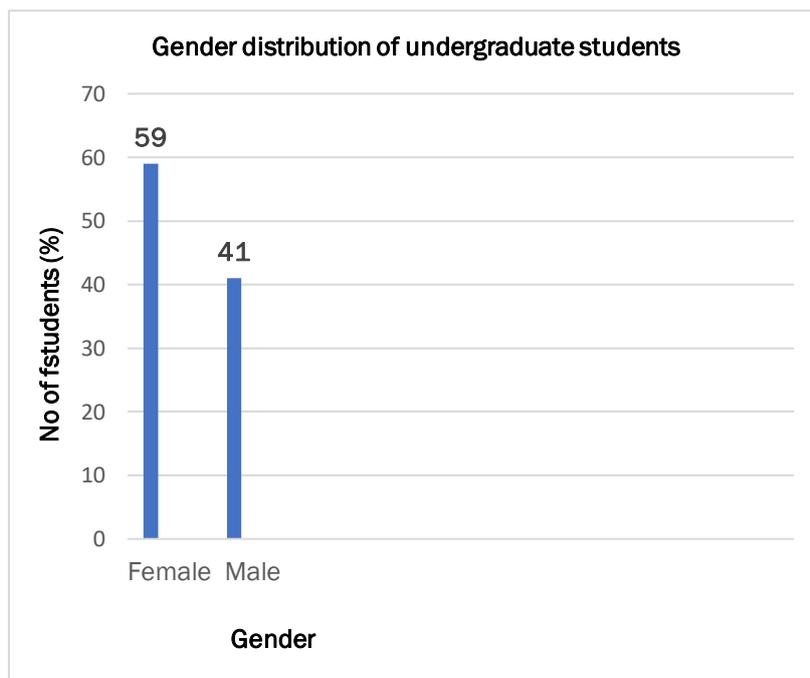


Graph 1. Departments of undergraduate students

Table 2 and Graph 2 depict the gender of the undergraduate students who participated in this study.

S.no	Gender	No of students (%) (n=100)
1	Females	59
2	Males	41

Table 2. Gender distribution of the undergraduate students.

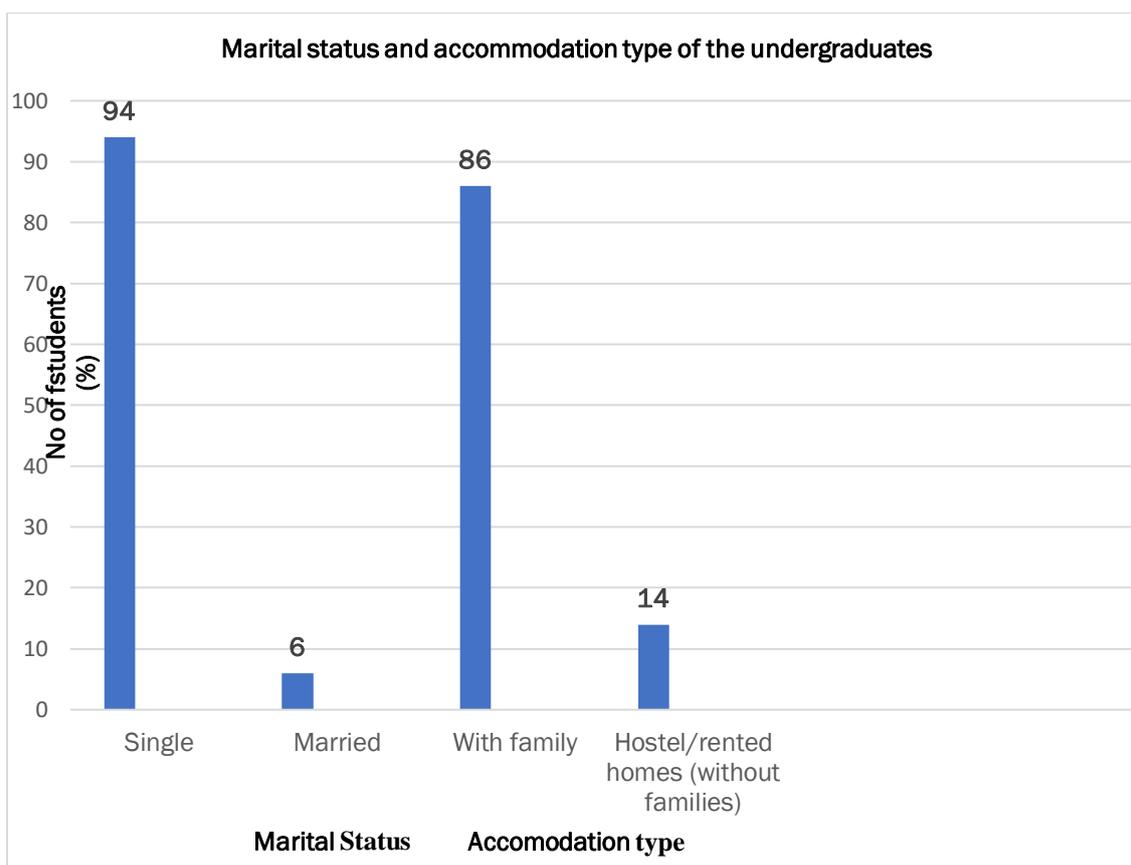


Graph 2. Gender distribution of the undergraduate students.

Marital status and accommodation type of the 100 undergraduate students were given in Table 3 and Graph 3.

S.no		No of students (%) (n=100)
1	Marital status	
	• Single	94
	• Married	6
2	Accommodation type	
	• With family	86
	• Hostel	14

Table 3. Marital status and accommodation type of the undergraduates.



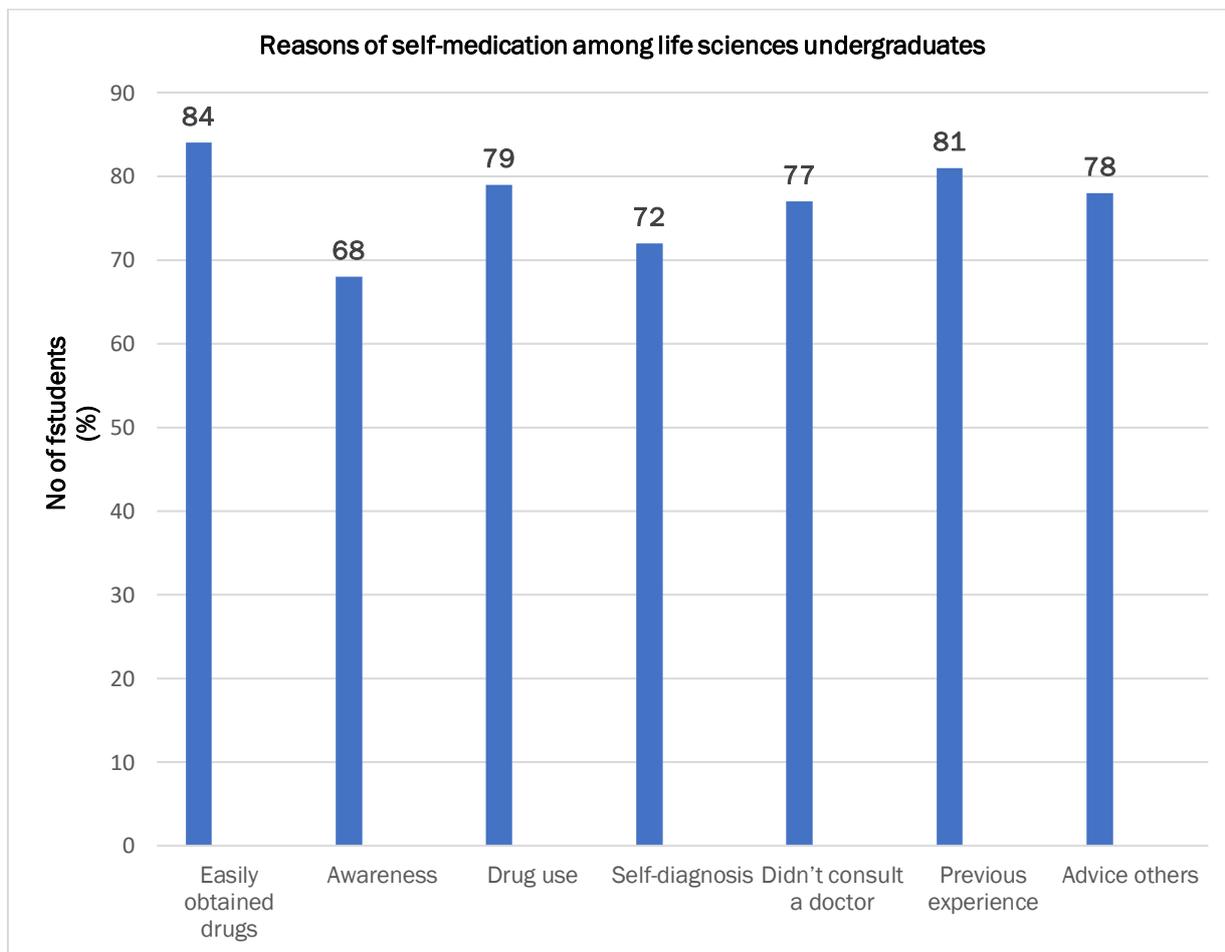
Graph 3. Marital status and accommodation type of the undergraduates.

Reasons of self-medication among undergraduates were given in Table 4 and Graph 4.

S.no	Reasons	No of students (%) (n=100)
1	Easily obtained drugs without prescriptions from pharmacies/at home	84
2	Awareness of the effects of used drugs	68
3	Drug use because of non-importance of disease	79
4	Self-diagnosis of disease related symptoms	72

5	Don't feel the need to consult a doctor	77
6	Previous experience of taking medication without prescription, recovery and similar illness symptoms	81
7	Advise others on drug use	78

Table 4. Reasons of self-medication among Life sciences undergraduates.

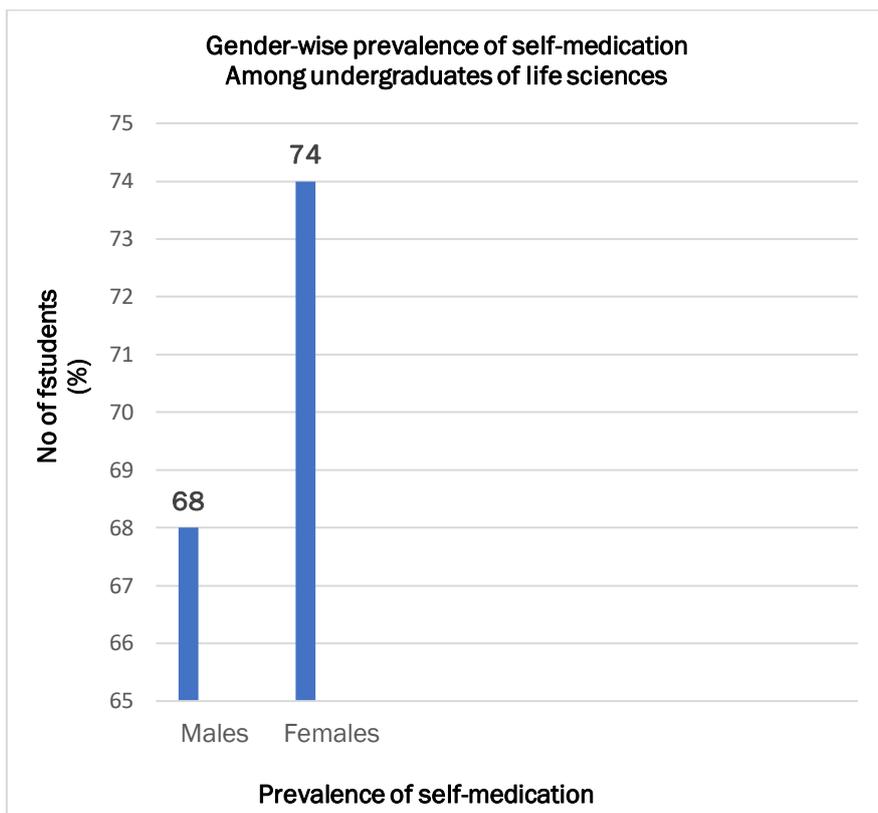


Graph 4. Reasons of self-medication among Life sciences undergraduates.

Gender-wise prevalence of Self-medication among 100 Life sciences undergraduate students were given in Table 5 and Graph 5.

S.no	Prevalence of Self-medication	No of students (%) (n=100)
1	Males	68
2	Females	74

Table 5. Gender-wise prevalence of Self-medication among Life sciences undergraduates.

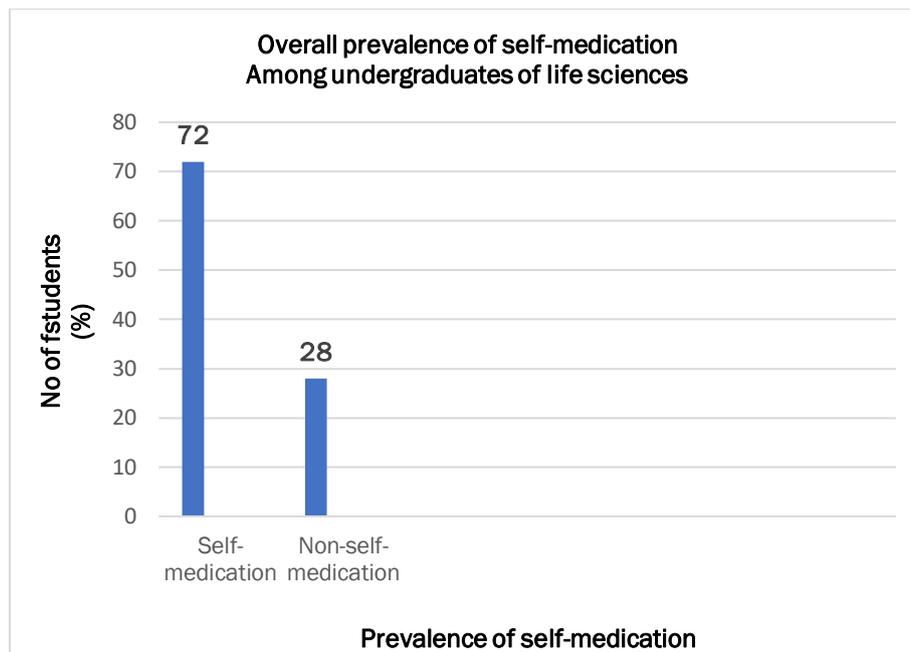


Graph 5. Gender-wise prevalence of Self-medication among Life sciences undergraduates.

Overall prevalence of Self-medication among 100 Life sciences undergraduate students were given in Table 6 and Graph 6.

S.no	Prevalence of Self-medication	No of students (%) (n=100)
1	• Self-medication	72
2	• Non- Self-medication	28

Table 6.Overall prevalence of Self-medication among Life sciences undergraduates.



Graph 6. Overall prevalence of Self-medication.

DISCUSSION

Self-medication is causing to increasing agents such as bacterial resistance, optimal treatment failure, Intentional and unintentional poisoning and unwanted side effects. The motive of the present study was to discover the main causes of Self-medication among the undergraduate students of Life Sciences at BUITEMS. The findings of present study showed that the overall prevalence of Self-medication among n=100 was significantly high i.e., 72% and a very small proportion of undergraduate students i.e., 28% were not subjected to self-medication as depicted in graph 6. Out of 100 sample size, 59% of students were females and the rest of them were males i.e., 41% as shown in graph 2 and a total of 94% of students were single while the remaining ones were married i.e., 6% as shown in graph 3. In addition, 86 % of students were living with their families while remaining students were accommodated in hostel or rented homes without families as shown in graph 3. Thus, the obtained results showed that there wasn't any significant relation between gender, department, marital status, accommodation type etc with self-medication and this result was similar with the results of Baghiyani et al 2006 ^[10] and Pourreza et al., 2013 ^[11]. However overall prevalence of self-medication was significantly high i.e., 72% and gender-wise prevalence of self-medication was also observed to be high i.e., 74% and 68% among females and males undergraduates respectively as depicted in graph 5. The most common reasons for this high prevalence rate among undergraduate students were that the drugs or medicine with which self-medication was done were easily available without prescriptions from any nearby pharmacies and most of them were already present at their homes i.e., 84% as depicted in graph 4, since these medicines were used for previous illness that occurs frequently such as cold, flu, fever, gastric upsets, diarrhea, headache, mild allergies, cold sores, body pain etc ^[12]. This informal availability of various drugs/medicines have become harmful social phenomenon leading to prevalence of self-medication ^[13,14] and is one of the major factors influencing self-medication as a wide variety of medicines, available in pharmacies and stores, are easily accessed by the users without any medical consultation. There are no clear rules and control on the over-the counter medications in Pakistan. This is similar to reports from previous studies in Saudi Arabia ^[15]

Ethiopia ^[16] and Oman ^[17]. Moreover, it raises the questions about health authorities' supervision in Pakistan on drug dispensing through pharmacies.

In addition to that our studies revealed that self-diagnosis of diseases by undergraduates were reported to be 72% and majority i.e., 77% didn't feel the need to consult a doctor because the symptoms of the disease were not severe i.e., 79% and also due to their previous experience with similar illness symptoms, taking medication without prescription and recovery i.e., 81%. These factors encourage the use of self-medication among undergraduate students as similar factors were reported in previous studies ^[18,19,20]. However, this high prevalence of self-medication among undergraduates can increase the effects, risks and drug interactions and resulting in a negative view of the logical treatment of diseases in the community ^[21]. In addition to that it increases the chances of illicit use of drug and most of all masking the sign and symptoms of underlying disease hence are complicating the problem, creating drug resistance and delaying diagnosis ^[22]. Therefore, Institutional education of students about the safe use of medications should be considered ^[23]. Strict policies could be introduced to regulate the procurement of medications and prohibit their purchase without a prescription through urging pharmacists to dispense them under supervised regulations ^[24,25]. And also, medical advice centers at universities should be formed in order to correct the behaviour of young and vulnerable undergraduate students and upsurge their motivation to the rational treatment of diseases ^[26].

Another interesting finding of our studies revealed that inspite of a high percentage of Life sciences students i.e., 68% were aware of the effects/risks of the used drugs but still practice self-medication and avoid consulting doctors for their medical problems ^[27,28]. Moreover, a large proportion also encourages others to practice self-medication i.e., 78% as reported in graph 4. Thus, awareness and education regarding the implications of self-medication is must.

CONCLUSION

Results of this study showed that the overall prevalence rate was high among the undergraduate students of Life sciences despite the fact that majority found aware of its harmful effects. There is need to revisit the definition and relative significance of 'self-medication' in our local setting.

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