Original paper

Self-Medication Practice among University Students in Albania: A Cross-Sectional Study

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Abstract

Background and Aim: Medical progress has spurred an increase in irrational drug use, particularly self-medication, prevalent among university students. The current study aimed to determine the prevalence of self-medication among university students in Albania, as well as to identify the reasons and source of information for self-medication practice.

Materials and Methods: This cross-sectional study was conducted among undergraduate students from medical and non-medical programs at University Fan S. Noli, Korça-Albania, from October 2021 to March 2022. A total of 209 standardized questionnaires were completed. The questionnaire had three sections: demographic information, prevalence and practice of self-medication, and students' attitudes towards self-medication. Data were analyzed using SPSS version 21, with a p-value of 0.05 considered statistically significant.

Results: In this study, 66.5% of the participants were female and 33.5% were male, aged 18 to 35. Non-medical students constituted 64.6%, while 35.4% were medical students. A significant association was found between self-medication and years of study (p = 0.041). Most participants (66%) self-medicated for mild illnesses. The top medications used were analgesics/NSAIDs (78.5%), herbal remedies (54%), and antibiotics (48.8%). Headache (94.7%) was the most common reason for self-medication, followed by fever (38.28%) and urinary infections (34.4%). Past experiences and advice from local pharmacists were the primary sources of information for self-medication.

Conclusion: The study revealed that university students commonly engage in self-medication, often using analgesics, herbal remedies, and antibiotics. It underscores the importance of students understanding the potential risks associated with self-medication, particularly regarding the rational use of antibiotics.

Keywords: *Self-medication, University student, Drugs, Ailment*

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Introduction

"Taking medications, herbs, or home remedies on own initiative, or at the recommendation of another person, without first contacting a doctor" is known as self-medication, which is a worldwide form of self-care [1]. When self-medication is properly used, both the patient and the healthcare system can benefit by reducing the need for expensive medical care, possibly saving lives in acute conditions, and reducing waiting times for medical attention. Conversely, self-medication raises the risk of adverse events such as overuse of medication, prolonged usage, inaccurate diagnosis, drug-drug interactions, and polypharmacy [2].

Self-medication among students is one of the most significant health issues because they are educated members of the community. They are regarded as exemplary figures for others about health-related habits. University students can be more influential in this field due to their active participation in the media and online communities. On the other side, because of their social standing, and more interaction with community members, university students are more susceptible to self-medication. Students with backgrounds in medicine and non-medicine differ in their educational background, particularly in the area of health [3].

Numerous nations have conducted studies on students' self-medication practices. According to a study by Esan *et al*., 2018 [4], more than 71% of the students used antibiotics and analgesics as a form of self-medication. Research conducted in Ethiopia by Zeru *et al*. 2020 [5] and Iran by Hashemzaei *et al*. 2021[6] revealed that approximately 50% of university students also self-medicate. Fever and headaches were the most often reported illness associated with self-medication in these trials. In both trials, previous drug use was the most common cause of self-medication [7].

A study conducted in 2016 in Zambia by Kalungia *et al*. discovered that self-medication was one of the main factors driving the widespread nonprescription selling and dispensing of antibiotics in Zambia.

This study aimed to find out how common self-medication is among undergraduate students in "Fan Noli" University of Korça, Albania, as well as what factors lead to and motivate such behavior.

Material and Methods

A retrospective cross-sectional study was carried out to evaluate the prevalence of self-medication practice among undergraduate students at the public University "Fan S. Noli", in Korça, Albania between october 2021 and march 2022. The study population included students of medical and non-medical study programs. Enrolled students in the study were chosen using a randomized sampling technique, every student who was contacted said they would be willing to take part in the research. Data were collected by using a self-administered questionnaire including open-ended and close-ended items carrying out information about demographics, years of education, and self-medication behaviors, in addition to their attitudes and perceptions about the practice. Thirty-one individuals participated in a pilot survey to evaluate and standardize the questionnaire. The collected data was analyzed using SPSS (Statistical Packages for Social Sciences) version 21. The p-value of 0.05 was considered statistically significant.

Results

Two hundred nine out of the 228 questionnaires that were provided to students were fully

completed and gathered, giving a 91.7 % response rate. The mean age of the students was 20.44 ± 2.09 years.

The results of the study have shown a significant difference between years of the study and self-medication practice (p = 0.041), as well as a significant difference between medical and nonmedical students and the attitude towards self-medication practice (p = 0.017) (Table 1).

Table 1. Prevalence of self-medication practice and attitude towards self-medication by demographic characteristics of participants

Variables	Overall n=209	Self-medication practice			Attitude towards self-medication		
		Yes (n, %)	No (n, %)	p-value	Yes (n, %)	No (n, %)	p-value
Sex							
Male	70 (33.5%)	62 (34%)	8 (42.85%)	0.346	45 (34.6%)	25 (31.6%)	0.387
Female	139 (66.5%)	120 (66%)	19 (57.15%)		85 (65.4%)	54 (68.4%)	
Age group							
18-22 years	179 (85.65%)	158 (86.8%)	21 (28.57%)	0.544	111 (85.38%)	68 (86.08%)	0.649
> 22 years	30 (14.35%)	24 (13.2%)	6 (71.43%)		19 (14.62%)	11 (13.92%)	
Mean age ± SD	**20.44 ± 2.09**						
Study program							
Non-medical students	135 (64.6%)	117 (64.3%)	18 (65.71%)	0.063	76 (58.5%)	59 (74.7%)	0.017*
Medical students	74 (35.4%)	65 (35.7%)	9 (34.29%)		54 (41.5%)	20 (25.3%)	
Years of study							
1st Bsc	49 (23.4%)	46 (25.3%)	3 (11.1%)	0.041*	33 (25.4%)	16 (20.3%)	0.627
2st Bsc	42 (20.1%)	37 (20.3%)	5 (18.5%)		22 (16.9%)	20 (25.3%)	
3st Bsc	61 (29.3%)	54 (29.7%)	7 (25.9%)		40 (30.8%)	21 (26.6%)	
1st Msc	16 (7.7%)	9 (4.9%)	7 (25.9%)		10 (7.7%)	6 (7.6%)	
2st Msc	41 (19.5%)	36 (19.8%)	5 (18.6%)		25 (19.2%)	16 (20.3%)	

* p-value of 0.05 was considered statistically significant.

The majority of the participants are self-medicated due to the mild illness (66%), knowledge about the drug and disease (31.1%), and previous experiences (22.49%) (Table 2).

Table 2. Reasons for self-medication practice

Variables	Yes n (%)	No n (%)
Mild illness	138 (66%)	71 (34%)
Treatment costs are high in clinics	3 (1.44%)	206 (98.56%)
Previous experiences	47 (22.49%)	162 (77.51%)
Knowledge about the drug and disease	65 (31.1%)	144 (68.9%)
Lack of trust in medical service	4 (1.91%)	205 (98.09%)
Self-decision	29 (13.88%)	180 (86.12%)
In emergency use	70 (33.49%)	139 (66.51%)

Among the participants, the majority of the students took analgesics/NSAIDs (78.5%); followed by herbal drugs (54%), antibiotics (48.8%), and vitamins (32.1%). The detailed data are presented in Figure 1.
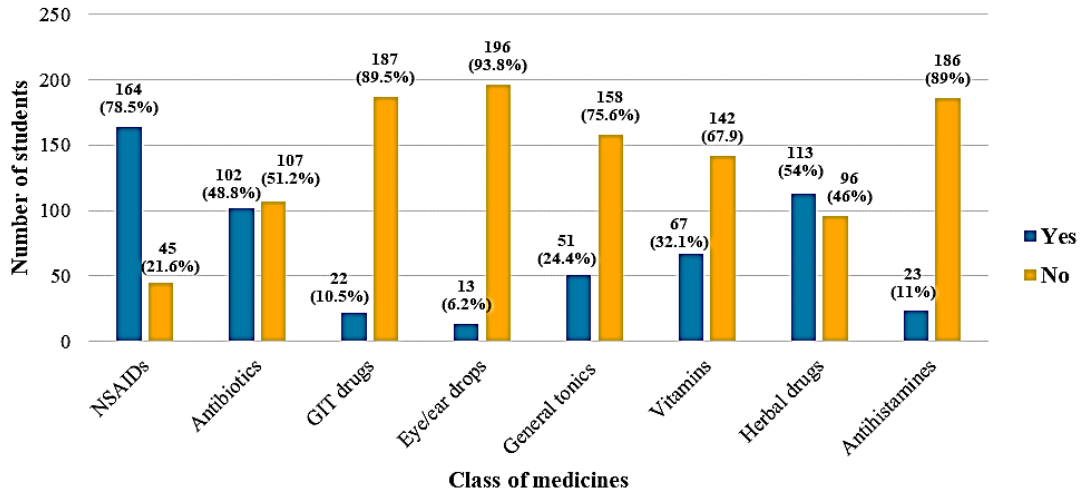
Figure 1. Drugs commonly used for self-medication

The most common self-medication indication among the students (Figure 2) was headache (94.7%), followed by fever (38.28%), urinary infection (34.4%), and dermatitis/pruritis (29.18%).
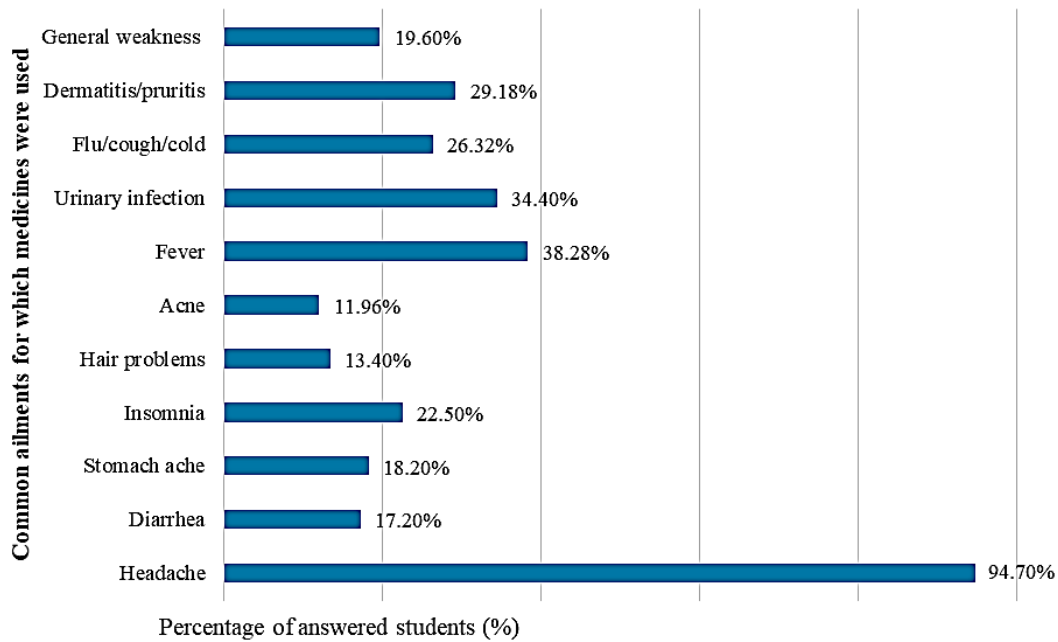

Figure 2. Common ailments for which medicines were used

The most common sources of information for self-medication were previous experiences (31.51%), consulting a local pharmacist (25.78%), a previous prescription from a physician (20.31%), and additional sources such as friends, family members, leaflets, and media (Figure 3).
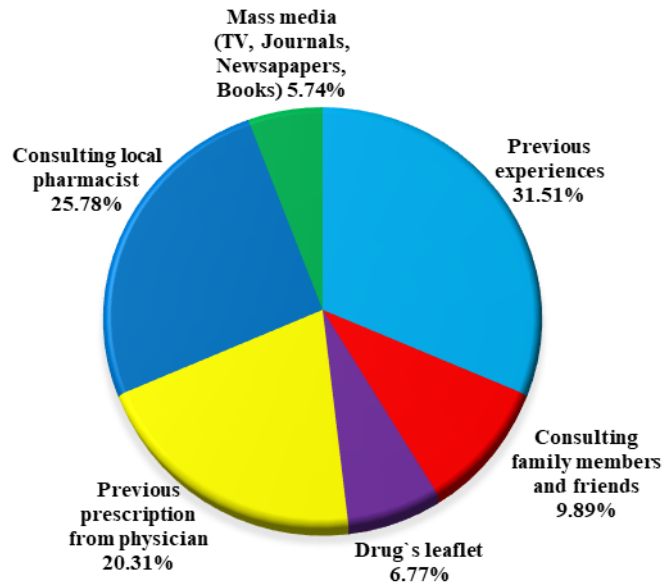
Figure 3. Sources of information for self-medication

Discussion

According to this study, 87.01% of students reported using self-medication, which is similar to a previous study conducted in Albania in 2019 (79.04%) among students of medical sciences [8] and higher than the rates for other population categories of medical and nonmedical undergraduate students [9], [10]. University students' high prevalence of self-medication may be due to a combination of factors, including widespread awareness of commonly used drugs and overconfidence coming from their high level of education. In addition to these, they are also encouraged to purchase pharmaceuticals without a prescription by reading medical books, brochures, news articles, and advertisements on social media about popular medications. The findings of the present study showed that colds, headaches, fever, urinary infection, dermatitis, and gastrointestinal issues were the most common health conditions for which students self-medicated. Other research reported that the common cold, headache, fever, vomiting, and hyperacidity were the common illness symptoms to be treated without the consultation of the physician [11], [12].

Sixty-two percent of students still think that using medicines for self-medication will help them get better physically. As was previously indicated, the majority of respondents took analgesics/NSAIDS and antipyretics as frequently as possible to treat fever and headaches. It makes sense that analgesics are used frequently because numerous over-the-counter analgesic drugs are meant to relieve mild to moderate pain. The use of analgesics and antipyretics was discovered in similar amounts in surveys carried out in Nepal and Jordan [11], [12]. According to our research, antibiotics are the second most often self-medicated medication for immediate symptom relief (48.8% of participants responded positively), similar to previous findings [13], [14]. In the meantime, there is serious worry about the usage of antibiotics when they are not prescribed for the necessary treatment of common diseases. The WHO reports that self-medication and incomplete antibiotic doses are the main contributors to antibiotic resistance in developing nations. These behaviors can have several negative consequences, such as increasing an antibiotic's sensitivity to microbial flora, developing multidrug resistance to pathogens, and

causing other related symptoms. As a result, self-medication with antibiotics needs to end right away and be closely regulated and overseen by the appropriate authorities.

Our study's data on non-medical and medical students' self-medication practices showed that there was not a significant difference in the self-medication practice, similar to Behzadifar *et al.* 2020 [15].

The current survey found that mildness of illness and knowledge about the drug and disease were the main reasons for practicing self-medication whereas, convenience (50.8 %) and cost saving (15.2 %) have been reported by Anwar et al., 2020 [16] as the main reasons for self-medication.

The limitations of this survey were the absence of a larger medical student group, such as students from other medical study programs, as well as the limited number of interviewed students.

Conclusion

In conclusion, it was discovered that a large percentage of Albanian university students, including medical and nonmedical ones self-medicate. Analgesics, antibiotics, and herbal drugs were most often utilized medicine classes for self-medication, while headache, fever, and urinary infection were the most prevalent conditions treated with the prescribed medications. It is important that students should be educated and aware of the negative effects of self-medication, particularly the excessive use of antibiotics.

Acknowledgment

Not applicable.

Conflict of Interests

The authors declare that there are no competing interests.

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