



African Journal of Advanced Pure and Applied Sciences (AJAPAS)

Online ISSN: 2957-644X

Volume 2, Issue 2, April-June 2023, Page No: 90-95

Website: <https://aaasjournals.com/index.php/ajapas/index>

||Arab Impact factor 2022: 0.87|| SJIFactor 2022: 4.308 || ISI 2022: 0.557

Self-Medication Practices among College Students of Medical Technology, Derna, Libya: A Cross-Sectional Survey Based Study

Hafed Idris Zaatout ^{1*}, Reem Idris Zaatout ²

¹ Lecturer, Department of Public Health, College of Medical Technology, Derna, Libya

² Graduate Student, Department of Public Health, College of Medical Technology, Derna, Libya

*Corresponding author: hiazaatout@gmail.com

Received: March 18, 2023

Accepted: April 16, 2023

Published: April 20, 2023

Abstract:

Self-medication is the practice of using medications to treat symptoms or illnesses that have been self-diagnosed without consulting a doctor. Despite its contribution to lessening the demand for medical services, it carries a number of health concerns for individuals who use it. Research on this subject revealed that students in the health sciences continued to self-medicate and advocate for it in public. Accordingly, the aim of this study was to estimate the prevalence of self-medication and investigate factors associated with it. A cross-sectional, questionnaire-based study was carried out to identify self-medication among undergraduate students at the College of Medical Technology, Derna, Libya. The data were collected and analyzed for counts and percentages. The study revealed that 64.72% of students reported self-medication practices in the preceding year. Moreover, self-medication practice was found more frequently in female students as compared to male students. Headache was the most frequently reported illness; commonly used drugs were antipyretics and analgesics; and the reason quoted was the disease's ease of prevention and cure. This study shows that self-medication is widely practiced among college students. There is a dire need to make students aware of the pros and cons of self-medication in order to ensure safe usage of medicines.

Keywords: Self-Medication, Practices, College Students, Derna, Libya.

Cite this article as: H. I. Zaatout, R. I. Zaatout, "Self-Medication Practices among College Students of Medical Technology, Derna, Libya: A Cross-Sectional Survey Based Study," African Journal of Advanced Pure and Applied Sciences (AJAPAS), Vol. 2, No. 2, pp. 90-95, April-June 2023.

Publisher's Note: African Academy of Advanced Studies – AAAS stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2023 by the authors. Licensee African Journal of Advanced Pure and Applied Sciences (AJAPAS), Libya. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Introduction

The World Health Organization defines self-medication as either the intermittent or continuous use of a prescribed drug for chronic or recurrent diseases or symptoms, or the use of pharmaceuticals to treat self-diagnosed disorders or symptoms [1]. Using over-the-counter (OTC), prescription-only, or complementary and alternative medicines are all examples of self-medication [2]. Both industrialized and developing nations frequently use self-medication. As a result, the national drug regulating body may approve a pharmaceutical as being secure for self-medication. These medications are typically used for the prevention or treatment of mild illnesses or symptoms that don't warrant seeing a doctor. After initial diagnosis and prescription, self-medication for some chronic or reoccurring ailments may be possible while the doctor retains an advisory role [3]. According to studies, self-medication trends are on the rise, especially among young people. This can be ascribed to socioeconomic circumstances, lifestyle choices, easy access to medications, the increasing ability to treat some ailments on one's own, and more accessibility to pharmaceuticals [4]. Moreover, pharmacological knowledge and usage are the primary factors contributing to self-medication, particularly among pharmacists

and doctors [5]. People today are eager to take on more personal responsibility for their health condition and to get as much reliable information as they can from authoritative sources to aid them in making informed decisions about their care. In order to help them, provide them guidance, and teach them about the medications available for self-medication, pharmacists have a crucial role to play. Also, the internet is growing in importance as a source of knowledge about health-related topics and holds great promise for assisting individuals with self-care. Depending on the country, self-medication may take different forms, be used to different degrees, or have different motivations. Both contemporary and conventional medicines are frequently utilized for self-medication in underdeveloped nations [6]. Self-medication is a helpful technique for treating minor illnesses, but incorrect self-medication or pharmaceutical addiction can have major negative drug reactions and even fatal results. Also, there is currently a global concern about the growth of microorganism strains that are resistant to antibiotics, which may have been significantly enhanced by self-medication.

This study aimed to evaluate the knowledge, attitudes, and self-medication practices of undergraduate students. Understanding the prevalence, causes, and risk factors associated with self-medication practices among students is crucial to designing appropriate educational, regulatory, and administrative initiatives for decreasing the health hazards associated with improper self-medication practices.

Materials and Methods

The study was designed as a cross-sectional, descriptive, questionnaire-based survey to find out the self-medication habits of undergraduate students enrolled in the College of Medical Technology, Derna, Libya. The city of Derna, which is on the Mediterranean coast in northern Libya, is where this college is located. This college offers courses in a range of scientific medical practices to its students. The information was gathered using a well-designed questionnaire that was self-administered. The questionnaire also asked about socio-demographic information, knowledge, and attitudes towards self-medication practices. The investigation was place from April through August of 2019. All enrolled students for the current academic year were eligible to participate in the study. For the study, all of the students' data had to be obtained. 610 questionnaires were distributed in total, and 530 of them were collected and verified as being fully completed, representing an overall response rate of 86.9%. The data from the survey were descriptive in nature and were presented as counts and percentages. The chi square test was used to analyze the discrepancy in proportions. A p-value below 0.05 was considered significant.

Results

The data was collected from 530 students at the College of Medical Technology, Derna, Libya. The collected data was analysed using descriptive statistics in terms of frequency and presented in different tables and figures.

Table 1: Respondents Socio-Demographic Characteristics, n=530

Variables	Frequency	Percentage
Age (Years):		
18 – 19	189	35.66
20 – 21	171	32.26
22 – 23	100	18.87
24 – 25	70	13.21
Gender:		
Males	98	18.49%
Females	432	81.51%
Marital Status		
Married	36	6.79
Single	494	93.21
Residence:		
Town	473	89.25
Outside town	57	10.75
Scientific Departments:		
General (Preparatory Stage)	160	30.19
Laboratory Medicine	54	10.19
Radiology	54	10.19
Drug Technology	53	10.00
Dental Technology	57	10.75
Public Health	45	8.49
Medical Care	58	10.94
Genetic Engineering	49	9.25

Table 1 of the results from 530 respondents reveals the following: The respondents' mean age was ± 21.50 years, and they ranged in age from 18 to 25. Considering gender, 98 (18.49%) were males and 432 (81.51%) were females. In terms of marital status, 494 (93.21%) were single and 36 (6.79%) were married. About where the students were from, 473 (89.25%) were from Derna City, and 57 (10.75%) were from somewhere else (neighbouring areas). All of the college's scientific departments were represented in the collected study sample with reference to the professional education stream.

Table 2: Prevalence of Self-Medication, n=530

Self-medicines taken in last one year	Frequency	Percentage
Yes	343	64.72
No	187	35.28

According to table 2, the prevalence of self-medication among college students is shown as 343 (64.72%) and 187 (35.28%), respectively.

Table 3: Prevalence of Self-Medication According to Gender Variable, n=530

Gender Variable	Self-medicines taken in last one year					P-value
	Yes		No		Total	
	Frequency	Percentage	Frequency	Percentage		
Males	52	15.16	46	24.60	98	< 0.05
Females	291	84.84	141	75.40	432	
Total	343	100 %	187	100 %	530	

Table 3 demonstrated that gender had a considerable independent association with the use of self-medication, with females being more likely than males to do so. Male prevalence was 52 (53.06%) and female prevalence was 291 (67.36%).

Table 4: Reported Symptoms in Last One Year, n=343

Reported symptoms or diagnosis	Frequency	Percentage
Headache	145	42.27
Cold / Flu	75	21.86
Tonsillitis	44	12.83
Fever	40	11.66
Sinusitis	34	9.91
Teeth Pain	29	8.45
Acidity	28	8.16
Skin Problems	23	6.70
Irritable colon	11	3.21
Anaemia	11	3.21
Asthma	9	2.62
Ear & Eye Problems	7	2.04
Ulcer	6	1.75

With regard to Table 4, 145 (42.27%) of the 343 respondents reported having a headache, followed by 75 (21.86%) who had a cold or the flu. Tonsillitis affected 44 (12.83%), fever affected 40 (11.66%), sinusitis affected 34 (9.91%), teeth pain affected 29 (8.45%), acidity affected 28 (8.16%), skin issues affected 23 (6.70%), irritable colon affected 11 (3.21%), anaemia affected 11 (3.21%), asthma affected 9 (2.62%), ear and eye problems affected 7 (2.04%), and ulcers affected 6 (1.75%).

Table 5: Reasons in Favor of Self-Medication, n=343

Reasons for self-medication	Frequency	Percentage
The disease easy to prevent & cure (Minor illness)	127	37.03
Quick relief	84	24.49
Prior experience	42	12.24
Emergency use	41	11.95
Poor quality of health services	39	11.37
Cost effectiveness	28	8.16

Table 5 lists this as one of the justifications for self-medication. The majority of respondents, 127 (37.03%), believed they had an easy disease to prevent and cure, which was followed by quick relief in 84 (24.49%), prior experience in 42 (12.24%), emergency use in 41 (11.95%), poor quality of health services in 39 (11.37%), and the fact that self-medication is an effective way to save money and time in 28 (8.16%) of the respondents.

Table 6: Source of Information of Drugs for Self-Medication, n = 343

Sources of information	Frequency	Percentage
Pharmacist	114	33.24
Previous consultation	56	16.33
Friend(s)	30	8.75
Television	9	2.62
Internet/ Books	47	13.70
Traditional healer	6	1.75

Table 6 shows that out of 343 respondents, 114 (33.24%) use pharmacists as sources of information, followed by 56 (16.33%) who use previous consultation, 47 (13.70%) who use the internet or books, 30 (8.75%) who use friend(s), 9 (2.62%) who use television, and 6 (1.75%) who use traditional healers.

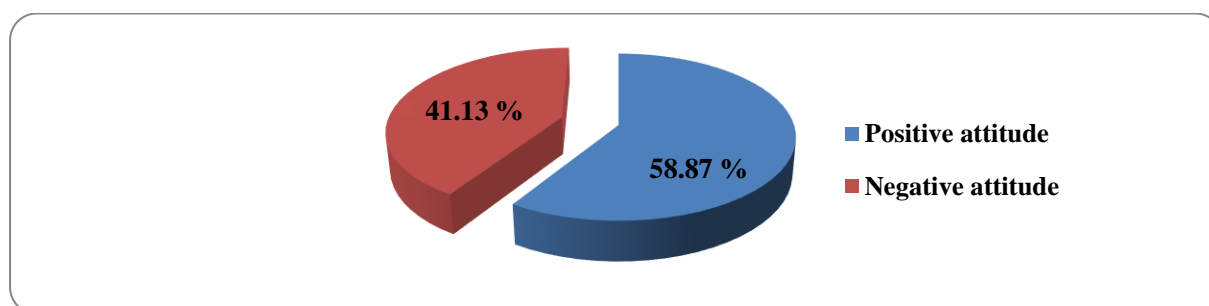


Figure 1: Respondent's Attitude Regarding Self-Medication, n = 530

Figure 1 shows that out of 530 respondents, 312 (58.87%) were in favor of self-medication while 218 (41.13%) were against it.

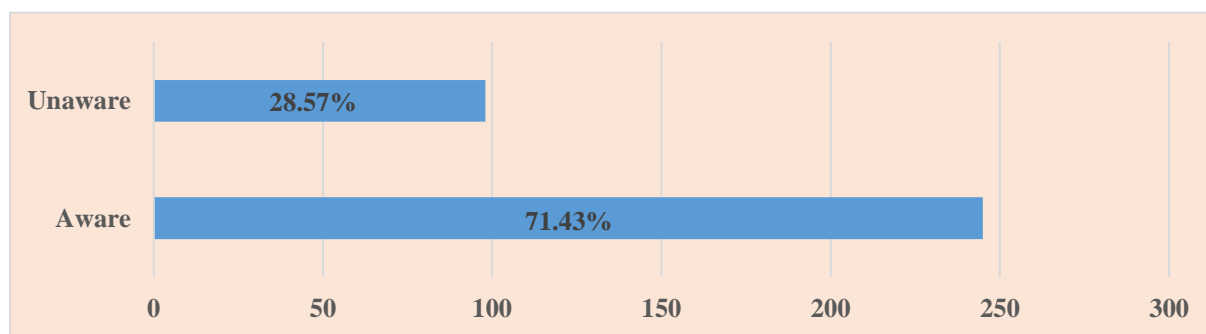


Figure 2: Students' Knowledge About the Hazards of Self-Medication, n=343

Figure 2 demonstrates that, of the 343 respondents, 245 (71.43%) had a good level of knowledge on self-medication and 98 (28.57%) had a poor level of knowledge.

Table 7: Drugs Used for Self-Medication, n = 343

Drugs used for self-medication	Frequency	Percentage
Analgesics & Antipyretics	174	50.73
Antibiotics	98	28.57
Topical Ointments	33	9.62
Anti-acids	32	9.33
Eye / Ear / Nose Drops	29	8.45
Vitamins & Minerals	29	8.45
Anti-allergies	27	7.87
Antispasmodic	23	6.70
Herbal	9	2.62

Table 7 lists the medications or drug groups that the 343 respondents used the most frequently for self-medication. The most frequently used medications are analgesics and antipyretics 174 (50.73%), followed by antibiotics 98 (28.57%), topical ointments 33 (9.62%), anti-acids 32 (9.33%), eye/ear/nose drops - vitamins and minerals 29 (8.45%), antihistamines 27 (7.87%), antispasmodics 23 (6.70%), and herbal remedies 9 (2.62%).

Table 8: Sources for Drug Procurement, n = 343

Sources for drug procurement	Frequency	Percentage
Purchase from pharmacy (medicine shop)	251	73.18
Unused medicine at home	64	18.66
Family member	42	12.24
Friend(s)	24	7

Regarding the source of drug acquisition, Table 8 reveals that 251 respondents (73.18%) obtained their medication(s) from a pharmacy, followed by 64 respondents (18.66%) who obtained their medication(s) from unused medications at home, 42 respondents (12.24%) from family members, and 24 respondents (7%) from friends.

Table 9: Request for Drugs at Medicine Shop, n = 251

The ordering ways	Frequency	Percentage
Mentioning the symptoms of health problem(s)	127	50.60
Recall the name of drug(s)	77	30.68
Bringing a sample from the drug or its packet	36	14.34
Using a previous prescription	33	13.15
Describing the form of drug or its packet	11	4.38
Recall the drug medicinal group	9	3.59

For Table 9, out of 251 respondents, 127 (50.60%) requested medications from the chemist by describing symptoms of a health issue, 77 (30.68%) remembered the medication's name, 36 (14.34%) brought a sample of the medication or its packet, 33 (13.15%) used a previous prescription, 11 (4.38%) described the medication's form, and 9 (3.59%) remembered the medication's medicinal group.

Discussion

A significant barrier to ensuring the safe and efficient use of medications is self-medication. Despite the fact that it is an increasingly common practice today, particularly among college students, it is more likely to be incorrect without sufficient information. The present study revealed that 64.72% of students reported self-medication practices in the preceding year. However, various studies have reported different prevalence figures ranging from 43.2 to 91%. It is very difficult to compare the prevalence of different studies with the present study due to different demographic characteristics, different methodologies, and different socioeconomic statuses. Self-medication practices were found more prevalent in female students as compared to male students, which is in concordance with a previous study [7], whereas few studies reported similar proportions in both sexes [8] and slightly higher in males as compared to females [9]. Among the self-medicators, the commonest illnesses that led to self-medication in this study were also reported similarly in a study carried out in South India, which revealed cold and flu as one of the most common reasons [10]. Various researchers revealed antipyretics and analgesics as commonly used drugs for self-medication, which is in agreement with the present study, whereas the study carried out in a tertiary care medical college in West Bengal reported antibiotics to be the most commonly used drugs [11]. With respect to the source of drug procurement, we observed that the pharmacy was the most common source, which is similar to the results of previous studies [9, 12]. The most common reasons for self-medication reported in our study were minor ailments and quick relief. Our findings regarding awareness of non-prescription medicines are comparable with a previous study [13]. Thus, our study demonstrates that self-medication is highly prevalent among the students. Self-medication is increasing alarmingly, so it is imperative that young people are educated about safe procedures. Although it is challenging to eradicate self-medication, there are a number of steps that can be taken to deter such behaviours. If nothing is done, there may be more interactions and negative outcomes.

Conclusion and Recommendations

This study indicated that students frequently self-medicate, which is made easier by the accessibility of drugs and the absence of any prohibitions. Moreover, there is a significant association between prevalence and the sex of respondents. Females were more inclined to self-medication than males. The prevalence of self-medication was high due to the ease of disease prevention and cure. Antipyretics and analgesics were the most commonly used drugs. The majority of respondents have good knowledge of self-medication and a favorable attitude

towards it. Although self-medication is unavoidable, drug regulatory authorities and health care professionals bear significant responsibility for self-medication control by informing students about the total impact of drugs on the body. This study, which was only conducted in one environment, will be useful in providing baseline information concerning the prevalence and usage of self-medication. Conducting counseling programs regarding the dangers of self-medication is helpful in preventing the negative effects of unauthorized prescription drugs. Large-scale studies of the same kind can be carried out in several contexts. By highlighting the risks associated with self-medication, it can also be covered in classes. Monitoring systems among the important stakeholder groups can be used to establish restrictions on the sale of pharmaceuticals with potentially dangerous consequences. Moreover, steps can be taken to prevent pharmacists from selling medicines without a valid prescription. The relevant authority should only permit pharmacy graduates to sell pharmaceuticals in order to somewhat regulate the high potential for danger caused by drug dose and duration. The results of this study show that, even though the students showed some awareness of self-medication, intervention programs are still necessary to reduce self-medication use.

References

- [1] World Health Organization. Guidelines for the Regulatory Assessment of Medicinal Products for Use in Self-Medication, World Health Organization, Geneva, Switzerland, 2000.
- [2] N. F. Torres, B. Chibi, L. E. Middleton, V. P. Solomon, and T. P. Mashamba-Thompson. Evidence of factors influencing self-medication with antibiotics in LMICs: a systematic scoping review protocol. *Systematic Reviews*, 21 Jul 2018, 7(1):102
- [3] Partha P, Shankar PR, Sheno N. Self-medication and non-doctor prescription practices in Pokhara valley, Western Nepal: a questionnaire based study. *BMC Family Practice*, 2002.
- [4] Alano GM, Galafassi LM, Galato D, Trauthman SC. Responsible self-medication: review of the process of pharmaceutical attendance. *BJPS*, 2009.
- [5] Al Khaja KAJ, Handu SS, James H, Ootom S, Sequeira RP. Evaluation of the Knowledge, attitude and practice of self-medication among first-year medical students. *Medical principles and practice*, 2006.
- [6] Mohan L, Pandey M, Verma RK. Evaluation of self-medication among professional students in North India: proper statutory drug control must be implemented. *Asian Journal of Pharmaceutical and Clinical Research*, 2010.
- [7] Gutema GB, Gadisa DA, Kidanemariam ZA, Berhe DF, Berhe AH, and Hadera MG. Self-medication practices among health sciences students: The case of Mekelle University. *J Appl Pharm Sci*; 1:183-9, 2011.
- [8] James H, Handu SS, Al Khaja KA, Ootom S, Sequeira RP. Evaluation of the knowledge, attitude, and practice of self-medication among first year medical students. *Med Princ Pract*; 15:270-5, 2006
- [9] Girish HO, Divya HM, Prabhakaran S, Venugopalan PP, Koppad R. A cross-sectional study on self-medication pattern among medical students at Kannur, North Kerala. *J Evol Med Dent Sci*; 2:8693-700, 2013.
- [10] Gaikwad NR, Patil AB, Khan TA. Comparative evaluation of knowledge, attitude and practice of self-medication among first- and second-year medical students. *J Datta Meghe Inst Med Sci Univ*; 5:157-62, 2010.
- [11] Banerjee I, Bhadury T. Self-medication practice among undergraduate medical students in a tertiary care medical college, West Bengal. *J Postgrad Med*; 58:127-31, 2012.
- [12] Abay SM, Amelo W. Assessment of self-medication practices among medical, pharmacy, and health science students in Gondhar University, Ethiopia. *J Young Pharm*; 2:306-10, 2010.
- [13] Sontakke SD, Bajait CS, Pimpalkhute SA, Jaiswal KM, Jaiswal SR. Comparative study of evaluation of self-medication practices in first- and third-year medical students. *Int J Biol Med Res*; 2:561-4, 2011.