

Prácticas de automedicación en estudiantes de una institución privada de Barranquilla Self-medication practices in students of a private institution in Barranquilla

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ABSTRACT

Introduction: Self-medication, has become a usual practice in university students around the world, there is controversy in front of the risks and benefits, because it is necessary to investigate this practice in Barranquilla Colombia.

Objective: To determine the practices of self-medication in students of a higher education institution in Colombia.

Methods: Descriptive quantitative study, conducted in a private university in Barranquilla, Colombia. A sample of 451 students from the faculties of health sciences, engineering and basic sciences was selected by simple random sampling with a confidence level of 95%, P: 80%, and a margin of error of 0.3.

Results: 74% self-medicated, 69% between 19 and 24 years of age, 83% urban area, 50% from the health area, 44% from engineering and 6% from basic sciences. Headache and flu were the most common symptoms. A 77% acquired in pharmacy, 66% sometimes used medications in a prolonged manner without medical supervision, 55% considered that they put their health at risk only sometimes, 83% never presented an adverse reaction after self-medicating, 50% always felt improvement in their symptoms and 45% never increased the dose if their symptoms did not improve

Conclusions: It represents risks for public health, which requires cost-effective interventions from public health policies, including sociocultural variants to promote safe self-medication..

Keywords: self-medication, university students, practices..

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INTRODUCTION

Self-medication is the use of medications without a medical prescription to treat recognized illnesses or symptoms. It is also considered a practice of self-care and a resource for public health (1). However, it is concerning that self-medication is increasingly becoming a voluntary practice with hidden health risks, not only because the uncontrolled consumption of drugs can have consequences over time, but also because it can mask the symptoms of the disease and sometimes prolong the illness (1–3).

On the other hand, organizations such as the International Pharmaceutical Federation and the global industry of

responsible self-medication highlight some positive aspects of this practice. These include a lower demand for healthcare services for minor ailments that do not require professional attention, which helps reduce healthcare system costs. Additionally, the greater accessibility of medications for patients leads to quicker relief from their ailments. Self-medication is also framed as one of the mechanisms of self-care that individuals adopt as part of their lifestyle, including nutrition and hygiene (4).

A meta-analysis published by the East Mediterr Health J. in 2020 shows that the prevalence of self-medication among university students is high worldwide. It also demonstrated

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that students with higher incomes were more likely to engage in self-medication (5).

A study conducted at the Catholic University of Argentina found that 58% of its students had consumed medications without the consent of a healthcare professional. The main reason for this was that they belonged to the healthcare field and had knowledge about the use of those medications (6). In a similar study conducted by the University of Rosario in Bogotá, Colombia, it was found that the practice of self-medication was prevalent among students in the healthcare field who were in clinical semesters or advanced semesters (7).

A study carried out with university students in Nepal reveals that the main cause of self-medication was motivated by mild discomfort and is associated with the fact that they thought that if they presented the same symptoms as in previous consultations, the same prescription could be used (8).

With regard to the city of Barranquilla, Colombia, it is pertinent to know the practices of self-medication in university students, so it is interesting to investigate if this phenomenon is equally common among university students, taking into account that our health system allows the free sale of medicines.

Methods

A quantitative, descriptive cross-sectional study was carried out, during the period from June 2022 to June 2023, the population was 6,925 students from a private university in Barranquilla Colombia, represented in a sample of 451 from the faculties of health sciences, engineering and basic sciences, sampling was carried out by simple random sampling with a confidence level of 95%. expected event ratio of 80% and margin of error of 0.3. After explaining the objectives and obtaining informed consent to protect the confidentiality of the participants. an instrument called knowledge, attitudes and practices was applied, validated by experts and subjected to pilot testing to contextualize the population group on self-medication to students of a private

university in Colombia, for the analysis the sociodemographic variables and the criteria of practices of the instrument were considered, focused on describing the pattern of self-medication, and the analysis was made using Excel. Among the inclusion criteria, it was considered to be enrolled in the faculties of health sciences, engineering and basic sciences and to voluntarily accept to fill out the questionnaire and as exclusion to be in a period of recess or disability.

This research was carried out following the ethical guidelines contemplated in resolution 8430 of 1993, this research was classified as low risk, the guidelines according to the Declaration of Helsinki were also considered.

The study did not present any conflicts of interest by the participants.

Results

The survey revealed that the prevalence of self-medication in the Faculty of Health Sciences was 50%. The most common symptoms that motivated self-medication were headache and flu. Most bought medicines at the pharmacy, although some used the ones they had at home. About 66% sometimes used medications for a long time without medical supervision. Risk perception varied, with most experiencing no adverse effects; Something relevant was that most of them felt improvement in their symptoms after self-medicating. In summary, self-medication was common, but it was necessary to raise awareness of its risks and promote responsible use of medications.

Self-medication was a more widespread practice in the Faculty of Health Sciences, where 37% of respondents reported self-medicating. This could be attributed to their prior knowledge of medications, which increased the likelihood that they would resort to self-medication. In addition, it was relevant to note that most of the students who self-medicated did so on more than four occasions a year

Table 1. Sociodemographic variables

VARIABLES	FACULTY					
		HEALTH SCIENCES	ENGINEERING	BASIC SCIENCES	TOTAL	
GENDER	FEMALE	171	15	16	202	
	%	38%	3%	4%	45%	
	MALE	75	164	10	249	451
	%	17%	36%	2%	55%	
AGE	15-18 years	24	10	5	39	
	%	5%	2%	1%	9%	
	19-24 years	176	120	15	311	
	%	39%	27%	3%	69%	
	25-30 years	43	49	4	96	451
	%	10%	11%	1%	21%	
	31 or more	3	0	2	5	
%	1%	0%	0%	1%		

ORIGIN	RURAL	40	33	2	75	
	%	9%	7%	0%	17%	
	URBAN	206	146	24	376	451
	%	46%	32%	5%	83%	

Analysis Table 1: the demographic analysis shows a panorama where 55% correspond to the male sex, 69% were in the age range of 19 to 24 years, 83% come from urban areas.

Table 2: Do you self-medicate?

VARIABLES	HEALTH SCIENCES	ENGINEERING	BASIC SCIENCES	TOTAL
Do you self-medicate?	166	149	20	335
	50%	44%	6%	100%

Analysis Table 2: Regarding the question about self-medication, it was found that 74% of the respondents recognize this practice, with the Faculty of Health Sciences being the largest proportion with 50%, followed by engineers with 44% and finally basic sciences with 4% of the total of those who said yes, 26% said they do not practice self-medication.

Table 3 How often do you self-medicate?

VARIABLES		HEALTH SCIENCES	ENGINEERING	BASIC SCIENCES	TOTAL	
How often do you self-medicate?	1 time a year	32	34	1	67	451
	%	7%	8%	0%	15%	
	2 times a year	36	33	5	74	
	%	8%	7%	1%	16%	
	3 times a year	40	23	8	71	
	%	9%	5%	2%	16%	
	4 times a year	33	22	9	64	
	%	7%	5%	2%	14%	
	> 4 times a year	105	67	3	175	
%	23%	15%	1%	39%		

Analysis Table 3 This could be due to their prior knowledge of medications, which led to an increase in the rate of self-medication. In addition, it was evident that most students self-medicated more than 4 times a year.

Table 4: Main symptom that led to self-medication

VARIABLES	HEALTH SCIENCES	ENGINEERING	BASIC SCIENCES	TOTAL		
Main symptom that led to self-medication.	Headache	136	110	21	267	451
	%	30%	24%	5%	59%	
	Fever	16	21	2	39	
	%	4%	5%	0%	9%	
	Sinusitis	6	4	2	12	
	%	1%	1%	0%	3%	
	Influenza	43	27	0	70	
	%	10%	6%	0%	16%	
	Eye discomfort	1	2	1	4	
%	0%	0%	0%	1%		

	Diarrhea	3	5	0	8
	%	1%	1%	0%	2%
	constipation	1	1	0	2
	%	0%	0%	0%	0%
	Menstrual cramps	35	7	0	42
	%	8%	2%	0%	9%
	Birth Control	5	2	0	7
	%	1%	0%	0%	2%

Table 4 analysis: The main symptom for which the surveyed students self-medicated at some point was headache, with a percentage of 59%, followed by influenza, which accounted for 19% of cases.

Table 5 Where or how did you acquire the medicines?

VARIABLES		HEALTH SCIENCES	ENGINEERING	BASIC SCIENCES	TOTAL
Where or how did you acquire the medicines?	Pharmacy	190	135	22	347
	%	42%	30%	5%	77%
	Supermarket	9	16	2	27
	%	2%	4%	0%	6%
	Medication you had at home	38	12	0	50
	%	8%	3%	0%	11%
	Relative, friend, neighbor, acquaintance.	6	11	0	17
	%	1%	2%	0%	4%
	Elsewhere	3	5	2	10
	%	1%	1%	0%	2%

Analysis 5: 77% of the students surveyed reported that they purchased their medications at the pharmacy, which could be due to the ease of acquiring over-the-counter medications at this establishment. This data was followed by 11% who mentioned that they self-medicated with medications they had at home.

VARIABLES	HEALTH SCIENCES		ENGINEERING	BASIC SCIENCES	TOTAL
	Do you take over-the-counter medicines for long periods of time until you get better?	Never	63	19	5
	%	14%	4%	1%	19%
	Sometimes	157	125	16	298
	%	35%	28%	4%	66%
	Always	26	35	5	66
	%	6%	8%	1%	15%

Table 6 Do you take over-the-counter medications for long periods of time until you get better?

Analysis 6: When respondents were asked if they took medications for a long time with options of "never," "sometimes," or "always," it was evident that the highest percentage, 66%, indicated that they sometimes took medications for a long time.

Table 7 Do you consider that you are putting your health at risk by consuming any medication without a prescription?

VARIABLES	HEALTH SCIENCES		ENGINEER RING	BASIC SCIENCES	TOTAL	
	Do you consider that you are putting your health at risk by consuming any medication without a prescription?	Never	61	39	4	104
%		14%	9%	1%	23%	
Sometimes		130	97	7	234	
%		29%	22%	2%	52%	
Always		55	43	15	113	
%		12%	10%	3%	25%	

Analysis 7: When answering the question about whether respondents considered that they put their health at risk by self-medicating, 55% responded that they sometimes considered it, and only 25% always considered the risk of consuming medications without a prescription.

Table 8 Have you ever suffered any adverse reactions after consuming a medicine without a prescription?

VARIABLES	CIENCIAS DE LA SALUD		INGENIERIA	CIENCIAS BASICAS	TOTAL	
	Have you ever suffered any adverse reactions after consuming a medicine without a prescription?	Never	202	150	23	375
%		45%	33%	5%	83%	
Sometimes		36	18	3	57	
%		8%	4%	1%	13%	
Always		9	10	0	19	
%		2%	2%	0%	4%	

Analysis 8: Regarding whether respondents had ever experienced an adverse reaction to the drug, results were obtained indicating that 83% had never experienced an adverse event, 13% had sometimes experienced adverse reactions, and 4% always had adverse reactions.

Table 9: Do you improve after self-medicating?

VARIABLES	CIENCIAS DE LA SALUD		INGENIERIA	CIENCIAS BASICAS	TOTAL	
	Do you improve after self-medicating?	Never	15	10	2	27
%		3%	2%	0%	6%	
Sometimes		106	86	5	197	
%		24%	19%	1%	44%	
Always		126	82	19	227	
%		28%	18%	4%	50%	

Analysis 9: When inquiring about the improvement in their symptoms after self-medication, the following results were obtained: 50% of the respondents stated that they felt improvement in their symptoms, 44% stated that sometimes, and 6% never felt improvement.

Table 10: If symptoms persist, do you purchase a new dose of over-the-counter medication?

VARIABLES	HEALTH SCIENCES		ENGINEER ING	BASIC SCIENCES	TOTAL	
	If symptoms persist, do you purchase a new dose of	Never	106	83	14	203
%		24%	18%	3%	45%	

over-the-counter medication?	Someti mes	109	80	10	199	451
	%	24%	18%	2%	44%	
	Always	31	16	2	49	
	%	7%	4%	0%	11%	

Analysis of Table 10: To the question, "If the symptoms persist, do you take a new dose of medication without a prescription?" the results showed that 45% never increased the dose, 26% sometimes increased it, and 11% always increased the dose.

DISCUSSION

Self-medication is a daily occurrence in young university students, with respect to the results of this research, 74% have done it, in agreement with other studies at the regional, national, and international levels, it is also evident that the place where medicines are acquired is the pharmacy (7–9). (9)(9–11) They do this under their own responsibility, assuming the risk of this practice, which they consider to be low risk, unlike the results obtained by Altamirano and collaborators, where it is shown that despite considering it high risk, it is a common practice.

Regarding the sociodemographic aspects, this research coincides with the study by Del Toro and collaborators (10), where the population was mostly female, in a similar age range, and from urban areas.

Regarding the motivations, it is evident that the most common reasons for self-medication are headaches, cold symptoms, and menstrual symptoms, with analgesics (12) and anti-cold medications being the most commonly used, according to studies conducted with university populations (13). A study conducted with Nigerian students showed that being in the health sciences field significantly influenced the practice of self-medication, with 90.2% of students engaging in this practice, considering the knowledge they had acquired throughout their studies. However, they were aware of the potential side effects this could cause (14).

This research shows a higher prevalence of self-medication practice by students of the Faculty of Health Sciences, with 50%, followed by the Faculty of Engineering with 44% and Basic Sciences with 6%, which suggests that it is necessary to continue investigating in order to determine if there is an association with the practice of self-medication (15)

Taking into account this study, we were able to notice with great concern, but at the same time with amazement that for some authors this practice is not something harmful, rather it is a form of self-care when it is done correctly, therefore, we invite future research to inquire about precautions when carrying out this practice that in the future will be of great help to our society.

Self-medication is increasingly frequent in university students, with implications in risks for public health, so it is necessary to investigate much more about the subject, and based on more information, propose intervention actions from public health policies and according to sociocultural variants in order to generate cost-effective alternatives

around safe self-medication. addressed in a comprehensive manner, that is, also considering the economic impact that it may generate for the health system.

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