Unifunec Científica Multidisciplinar
ISSN 2763-5783
DOI: https://doi.org/10.24980/ucm.v12i14.5992

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Received on: February 23, 2023.

Approved on: August 11, 2023.

PREVALENCE OF SELF-MEDICATION AMONG NURSING STUDENTS AT A UNIVERSITY IN NORTHWESTERN SÃO PAULO STATE, BRAZIL•

ABSTRACT

Self-medication is a practice carried out by anyone who decides to take medication on their own and is often unaware of the risks this can have to their health. Another relevant point is that, in addition to these factors, this practice is observed among students in healthcare programs. Because of the poisoning and health problems that self-medication can cause, especially in healthcare students, as these students are taught and indoctrinated about the effects of this practice during their undergraduate course, the aim of this study was to investigate the prevalence of self-medication among nursing students at a private university. This is a cross-sectional study with a quantitative approach. To quantify the research, a questionnaire containing 11 questions was administered to 103 nursing students. It resulted that self-consumption of medicines was considered an option for 93 nursing students, the majority of whom were female, aged between 18 and 20, with medical insurance coverage, and aware of the possible health risks, even after accessing the medication's directions leaflet. The clinical picture that preceded self-medication mainly consisted of headaches, colds/influenza, and muscle pain. There was a preference for medications that had already been used, especially analgesic, anti-inflammatory, antipyretics, and muscle relaxants. The conclusion is that nursing students have set an example for society by becoming health professionals, and it is hoped that they will be able to guide and inform patients about the risks of self-medication and the importance of seeking out a qualified professional.

Keywords: Nursing. Nursing students. Self-medication. Health risks.

PREVALÊNCIA DO AUTOCONSUMO DE MEDICAMENTOS EM ALUNOS DE ENFERMAGEM EM UNIVERSIDADE DO NOROESTE PAULISTA

RESUMO

A automedicação é uma prática realizada por qualquer pessoa que decide tomar medicamentos por conta própria e muitas vezes desconhece os riscos que isso pode acarretar à sua saúde. Outro ponto relevante é que, além desses fatores, essa prática é observada em estudantes dos cursos na área da saúde. Em razão das intoxicações e problemas de saúde que a automedicação pode causar, principalmente em estudantes da área da saúde, já que os acadêmicos são ensinados e doutrinados quanto aos efeitos dessa prática durante o curso de graduação, tomou-se como objetivo investigar a prevalência da automedicação dos alunos de enfermagem em uma universidade privada. A pesquisa é um estudo transversal com abordagem quantitativa. Para quantificar a investigação, foi aplicado um questionário contendo 11 questões em 103 alunos de enfermagem. Como resultado, o autoconsumo de medicamentos foi considerado uma opção para 93 estudantes de enfermagem, a maioria do sexo feminino, com idade entre 18 a 20 anos, com convênio médico e cientes de possíveis riscos à saúde, mesmo após acesso a bulas. O quadro clínico que precedeu a automedicação incluiu, principalmente, cefaleia, gripes/resfriados e dores musculares. Houve preferência por medicamentos já utilizados, especialmente, analgésicos, anti-inflamatórios, antigripais e relaxantes musculares. Conclui-se que os alunos de enfermagem serviram de exemplo para a sociedade, ao se tornarem profissionais da saúde, e espera-se que tenham capacidade de orientar e informar os pacientes sobre os riscos da automedicação e a importância de procurar um profissional qualificado.

Palavras-chave: Enfermagem. Estudantes de enfermagem. Automedicação. Riscos à saúde.

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Unifunec Científica Multidisciplinar
ISSN 2763-5783
DOI: https://doi.org/10.24980/ucm.v12i14.5992

1 INTRODUCTION

Self-medication is a common practice in the general population (PALODETO; FISCHER, 2018). This activity has led to the practice of people taking medicines on their own according to their knowledge, even without consulting a physician (TOGNOLI *et al.*, 2019; FETENSA *et al.*, 2021). According to Behzadifar *et al.* (2020), self-medication is limited to the use of one or more types of over-the-counter medication that do not require a medical prescription.

It should be noted that when a person decides to use medication without a prescription, they either refer to their own conscience or their previous experiences rely on information from third parties about the efficacy of the medicine, or even read about the product or react to new information about it (GALÁN-ANDRÉS *et al.*, 2021). Para Seam *et al.* (2018), this can also result from inadequate advice from health professionals.

This practice often brings positive results, such as symptom relief, but it presents a health risk, since its use can mask evolving diseases, cause addiction, worsen the symptoms or the initial disease, cause hypersensitivity reactions and iatrogenic diseases, among other risks (GAMA; SECOLI, 2017).

According to Ateshim *et al.* (2019), inappropriate self-medication can lead to a delay in the diagnosis of a serious health problem, impairing health with side effects and worsening the patient's condition. These considerations point out that the main problems associated with self-medication include adverse reactions, resistance to the active ingredient of medicines, waste of resources, and serious health risks, including death (KASSIE; BIFFTU; MEKONNEN, 2018; BEHZADIFAR *et al.*, 2020). The Brazilian National Toxicological-Pharmacological Information System (SINITOX) shows the evolution of registered cases of human poisoning by toxic agents. Thus, in 2017 SINITOX showed 20,637 cases of drug poisoning in Brazil, including 50 cases of death. SINITOX also showed 750 cases of patients with unconfirmed cure and 2 cases of sequelae (BRAZILIAN MINISTRY OF HEALTH *et al.*, 2020). It is clear that these problems are of great concern to the entire population, requiring a new education strategy to fight the practice of taking medication without a doctor's prescription.

Self-medication is a health problem in many countries, including Brazil (JANATOLMAKAN *et al.*, 2022; LEITE *et al.*, 2022). A clear example of this is related to socioeconomic issues: people with low levels of education, knowledge, and basic income are unable to afford a medical consultation and adequate treatment (ABDI *et al.*, 2018).

Another point is the prevalence of self-medication, which has increased dramatically. Evidence shows that approximately 80% of drugs can be purchased without a prescription (FEREIDOUNI; NAJAFI KALYANI, 2019). These aspects show that self-medication can be

Unifunec Científica Multidisciplinar
ISSN 2763-5783
DOI: https://doi.org/10.24980/ucm.v12i14.5992

considered a worldwide problem, especially for people who have easy access and familiarity with medicines, particularly university students (ESAN *et al.*, 2018; FEKADU *et al.*, 2020). Accordingly, evidence suggests that the prevalence of self-medication is relatively high among healthcare students (PALODETO; FISCHER, 2018; JANATOLMAKAN *et al.*, 2022).

Thus, the use of medication is increasing among university students, and the likelihood of self-medication is higher among nursing students due to their easy access to sources of information and their acquired knowledge (ELDEN *et al.*, 2020), either through direct feedback from teachers or during theoretical or practical learning, especially in pharmacology.

Self-medication among health students is considered a significant public health problem, since the indiscriminate use of medication can indirectly influence drug administration practices and affect patient safety. Thus, the safe use of medication is fundamental in the work of nurses, especially in education about health risks (GAMA; SECOLI, 2017).

Given this context, studying self-medication practices among university students is important, since students are an educated part of the community, and it is believed that they can orient the population about the consequences of self-medication (FETENSA *et al.*, 2021). In view of this, studies on the practice of self-medication can help in acknowledging the need for health education and for the implementation of educational interventions during undergraduate studies. Therefore, this study aims to investigate the prevalence of self-medication among nursing students.

2 METHODOLOGY

This is a descriptive cross-sectional study with a qualitative and quantitative approach that was carried out using a questionnaire containing 11 questions. The study was approved by the Research Ethics Committee of the University Center of Santa Fé do Sul (Unifunec) under Opinion No. 4.895.175 and Certificate of Presentation for Ethical Appraisal (CAAE) No. 47401221.0.0000.5428. The participants were 103 nursing students from Unifunec's Campus II in Santa Fé do Sul, State of São Paulo, Brazil.

The inclusion criteria were students over the age of 18, enrolled in the university's nursing course, and studying from the first to the ninth semester. The exclusion criteria were students who did not sign the required Free and Informed Consent Form (FICF) or who had any chronic or acute illness that required a medical prescription for treatment.

A multiple-choice questionnaire generated on Google Forms was used. The link was sent to the WhatsApp groups of the nursing course, containing the FICF and 11 questions, adapted from Servidoni *et al.* (2006) and Santos e Coutinho (2010). The questions were: 1. age;

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ISSN 2763-5783
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2. gender; 3. semester in the course; 4. previous training; 5. medical insurance coverage, use of self-medication, and associated details; 6. whether the respondent ever used any medication without a medical prescription; 7. when the respondent follows their own advice, on what is it based; 8. why the respondent has ever self-medicated; 9. how often does the respondent read the medication's directions leaflet before self-medicating; 10. medication types most used by the respondent; and 11. symptoms that led the respondent to self-medicate. This survey was carried out between February and December 2022.

The data were extracted using a Microsoft Excel spreadsheet. Statistical analysis was carried out using the non-parametric Kruskal–Wallis test at the 5% significance level, using IBM SPSS Statistics software, version 23.

3 RESULTS

The sample included 103 students from the first to the ninth semester of the Unifunec nursing course: 31 (30.1%) from the first semester, 2 (1.94%) from the second semester, 31 (30.1%) from the third semester, 13 (12.62%) from the fifth semester, 16 (15.53%) from the seventh semester, and 5 (4.85%) from the ninth semester. Of these students, 90 (87.4%) were female and 13 (12.6%) were male. The predominant age group was between 18 and 20 years old, with 52 (50.49%) students (Table 1).

Table 1 - Epidemiological characteristics of the students (absolute and relative values)

Information	N	%
Age		
18 to 20 years old	52	50.49
21 to 23 years old	24	23.30
24 to 26 years old	10	9.71
27 to 30 years old	5	4.85
> 30 years	12	11.65
Gender		
Female	90	87.38
Male	13	12.62
Course term		
1st semester	31	30.10
2nd semester	2	1.94
3rd semester	31	30.10
5th semester	13	12.62
7th semester	16	15.53
9th semester	5	4.85
No answer	5	4.85

Source: Authors' own data.

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With regard to the conduct of the participants in relation to the use of medication without a medical prescription (Table 2), it was found that 93 students had already self-medicated, with 68 (66.02%) students having this as a habit for medication not legally requiring a compulsory medical prescription and 25 (24.27%) students with the same habit for medication legally requiring a medical prescription. Only 10 participants (9.71%) in the survey, all of whom female (100%), said that they had never used medication without a 'medical prescription.

Among those who said that they had self-medicated with medication not requiring a prescription for purchase, 58 (85.29%) were female and 10 (14.71%) were male. Of those who had self-medicated using medication that 'requires a medical prescription for purchase, 22 (88%) were female and 3 (12%) were male. Among the students who had used medication without a prescription, 23 were students (33.82%) from the 1st semester, 1 (1.47%) from the 2nd semester, 21 (30.88%) from the 3rd semester, 8 (11.76%) from the 5th semester, 9 (13.24%) from the 7th semester, and 3 (4.41%) from the 9th semester. Among those who had self-medicated even if they need a 'medical prescription to buy the medication, there were 4 students (16%) in the 1st semester, 9 (36%) from the 3rd semester, 3 (12%) from the 5th semester, 5 (20%) from the 7th semester and 2 students from the 9th semester (Table 2).

Table 2 - Cross-referencing of data on whether the students had ever used medication without a prescription with the students' epidemiological characteristics

Information	***Total***		***No***		***Yes [XY]***		***Yes [XW]***		**p *value***
	N	***%***	***N***	***%***	***N***	***%***	***N***	***%***	
	103	**100.00**	**10**	**9.71**	**68**	**66.02**	**25**	**24.27**	
Age									
18 to 20 years old	52	50.49	4	40.00	36	52.94	12	48.00	0.916
21 to 23 years old	24	23.30	4	40.00	14	20.59	6	24.00	
24 to 26 years old	10	9.71	1	10.00	6	8.82	3	12.00	
27 to 30 years old	5	4.85	0	0.00	4	5.88	1	4.00	
> 30 years	12	11.65	1	10.00	8	11.76	3	12.00	
Gender									
Female	90	87.38	10	100.00	58	85.29	22	88.00	0.426
Male	13	12.62	0	0.00	10	14.71	3	12.00	
Course term									
1st semester	31	30.10	4	40.00	23	33.82	4	16.00	0.222
2nd semester	2	1.94	1	10.00	1	1.47	0	0.00	
3rd semester	31	30.10	1	10.00	21	30.88	9	36.00	
5th semester	13	12.62	2	20.00	8	11.76	3	12.00	
7th semester	16	15.53	2	20.00	9	13.24	5	20.00	
9th semester	5	4.85	0	0.00	3	4.41	2	8.00	
No answer	5	4.85	0	0.00	3	4.41	2	8.00	

Source: Authors' own data. *p* - Level of significance obtained in the Kruskal–Wallis test. **Caption:** Yes [XY]) yes, but a medical prescription was not required to buy the medication; Yes [XW]) yes, even though a medical prescription was required in order to use the medication.

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Table 3 shows the reasons why nursing students self-medicated, including that medication having already solved the problem for family members or friends (10.68%), having knowledge about the drug (36.89%), having used it other times, and having solved their own problem (48.54%).

Table 3 - Reasons for self-consumption of medicines.

In the case of self-medication by the respondent's own decision, it is based on:											**p *value***
Information	***Total***		***XA***		***XB***		***XC***		***No answer***		
	N	***%***	***N***	***%***	***N***	***%***	***N***	***%***	***N***	***%***	
	103	**100.00**	**11**	**10.68**	**38**	**36.89**	**50**	**48.54**	**4**	**3.88**	
Age											
18 to 20 years old	52	50.49	6	54.55	17	44.74	27	54.00	2	50.00	0.777
21 to 23 years old	24	23.30	0	0.00	10	26.32	12	24.00	2	50.00	
24 to 26 years old	10	9.71	3	27.27	5	13.16	2	4.00	0	0.00	
27 to 30 years old	5	4.85	0	0.00	3	7.89	2	4.00	0	0.00	
> 30 years	12	11.65	2	18.18	3	7.89	7	14.00	0	0.00	
Course term											
1st semester	31	30.10	5	45.45	9	23.68	16	32.00	1	25.00	**0.020**
2nd semester	2	1.94	0	0.00	0	0.00	2	4.00	0	0.00	
3rd semester	31	30.10	4	36.36	9	23.68	18	36.00	0	0.00	
5th semester	13	12.62	1	9.09	8	21.05	3	6.00	1	25.00	
7th semester	16	15.53	0	0.00	7	18.42	8	16.00	1	25.00	
9th semester	5	4.85	0	0.00	4	10.53	0	0.00	1	25.00	
No answer	5	4.85	1	9.09	1	2.63	3	6.00	0	0.00	

Source: Authors' own data. *p* - Level of significance obtained in the Kruskal–Wallis test. **Caption:** XA: the medication had solved the problem for a family member or friend; XB: the respondent had knowledge about the drug used; XC: the respondent had previously used that medication, and it solved their problem.

The reasons why students self-medicate are: 1. They think that they do not need to have a medical consultation: 70 (67.96%), of whom 40% have medical insurance coverage. 2. Others report self-medicating because of the influence of family or friends: 10 (9.71%), of whom 70% are medically insured. 3. Some students 'dislike medical consultations: 7 (6.80%), of whom 42.86% are covered by medical insurance. 4. Some say they 'have no time for medical consultations: 11 (10.68%), of whom 27.27% are medically insured. 5. Lastly, some find it difficult to get medical care: 2 (1.94%), none of whom had medical insurance (Table 4).

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Table 4 - Reasons for self-medication

Why have you self-medicated?															p *value*
Information	*Total*		*XD*		*XE*		*XF*		*XG*		*XH*		*No answer*		
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	
	103	**100.00**	**70**	**67.96**	**10**	**9.71**	**7**	**6.80**	**11**	**10.68**	**2**	**1.94**	**3**	**2.91**	
Age															
18 to 20 years old	52	50.49	35	50.00	7	70.00	5	71.43	2	18.18	1	50.00	2	66.67	**0.035**
21 to 23 years old	24	23.30	18	25.71	2	20.00	1	14.29	2	18.18	0	0.00	1	33.33	
24 to 26 years old	10	9.71	6	8.57	0	0.00	1	14.29	2	18.18	1	50.00	0	0.00	
27 to 30 years old	5	4.85	4	5.71	0	0.00	0	0.00	1	9.09	0	0.00	0	0.00	
> 30 years	12	11.65	7	10.00	1	10.00	0	0.00	4	36.36	0	0.00	0	0.00	
Course term															
1st semester	31	30.10	20	28.57	2	20.00	3	42.86	4	36.36	1	50.00	1	33.33	0.879
2nd semester	2	1.94	2	2.86	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	
3rd semester	31	30.10	23	32.86	4	40.00	2	28.57	1	9.09	1	50.00	0	0.00	
5th semester	13	12.62	8	11.43	3	30.00	0	0.00	1	9.09	0	0.00	1	33.33	
7th semester	16	15.53	11	15.71	1	10.00	1	14.29	3	27.27	0	0.00	0	0.00	
9th semester	5	4.85	3	4.29	0	0.00	1	14.29	1	9.09	0	0.00	0	0.00	
No answer	5	4.85	3	4.29	0	0.00	0	0.00	1	9.09	0	0.00	1	33.33	
Medical insurance?															
No	60	58.25	42	60.00	3	30.00	4	57.14	8	72.73	2	100.00	1	33.33	0.222
Yes	43	41.75	28	40.00	7	70.00	3	42.86	3	27.27	0	0.00	2	66.67	

Source: Authors' own data. *p* - Level of significance obtained in the Kruskal–Wallis test. **Caption:** XD: the respondent thought there was no need to have a medical consultation; XE: the respondent was influenced by family or friends; XF: 'the respondent dislikes medical consultations; XG: 'the respondent has no time for medical consultations; XH: the respondent has difficulty obtaining medical care.

In Table 5, the descriptive crossover was more significant because it showed that students in later semesters of the course felt it more necessary to read the medication's directions leaflet before self-medicating, as did the students who reported having previous training.

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Table 5 - Frequency of reading the medication's directions leaflet before self-medicating

Do you read the medication's directions leaflet before self-medicating?											
Information	***Total***		***Sometimes***		***Never***		***Rarely***		***Always***		**p *value***
	N	***%***	***N***	***%***	***N***	***%***	***N***	***%***	***N***	***%***	
	103	**100.00**	**48**	**46.60**	**15**	**14.56**	**17**	**16.50**	**23**	**22.33**	
Age											
18 to 20 years old	52	50.49	28	58.33	9	60.00	10	58.82	5	21.74	0.006
21 to 23 years old	24	23.30	9	18.75	5	33.33	4	23.53	6	26.09	
24 to 26 years old	10	9.71	3	6.25	1	6.67	2	11.76	4	17.39	
27 to 30 years old	5	4.85	2	4.17	0	0.00	0	0.00	3	13.04	
> 30 years	12	11.65	6	12.50	0	0.00	1	5.88	5	21.74	
Course term											
1st semester	31	30.10	21	43.75	3	20.00	3	17.65	4	17.39	0..058
2nd semester	2	1.94	0	0.00	0	0.00	2	11.76	0	0.00	
3rd semester	31	30.10	11	22.92	7	46.67	6	35.29	7	30.43	
5th semester	13	12.62	6	12.50	0	0.00	3	17.65	4	17.39	
7th semester	16	15.53	7	14.58	3	20.00	0	0.00	6	26.09	
9th semester	5	4.85	1	2.08	2	13.33	0	0.00	2	8.70	
No answer	5	4.85	2	4.17	0	0.00	3	17.65	0	0.00	
Previous training											
Nursing	4	3.88	2	4.17	0	0.00	1	5.88	1	4.35	0..004
Physical therapy	1	0.97	0	0.00	0	0.00	0	0.00	1	4.35	
Advertising	1	0.97	0	0.00	0	0.00	1	5.88	0	0.00	
NT	5	4.85	2	4.17	0	0.00	0	0.00	3	13.04	
AT	1	0.97	0	0.00	0	0.00	0	0.00	1	4.35	
Other course	9	8.74	3	6.25	1	6.67	0	0.00	5	21.74	
'No previous training	82	79.61	41	85.42	14	93.33	15	88.24	12	52.17	

Source: Authors' own data. *p* - Level of significance obtained in the Kruskal–Wallis test. **Caption:** (NT) nursing technician; (AT) administrative technician;

Table 6 shows the medication types most used by nursing students for self-medication, including painkillers (12.27%), anti-inflammatory drugs (11.54%), antipyretics (9.38%), muscle relaxants (8.66%), and cough syrups (8.37%).

Table 6 - Medication types most used by the students

Type of medication	***N***	***%***
	693	**100.00**
Analgesics	85	12.27%
Anti-inflammatory drugs	80	11.54%
Antifungals	65	9.38%
Muscle relaxants	60	8.66%
Cough syrups	58	8.37%

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Type of medication	*N*	*%*
	693	**100.00**
Anxiolytics/Antidepressants/Insomnia treatment	51	7.36%
Antiallergics/Antihistamines	48	6.93%
Antibiotics	39	5.63%
Oral contraceptives	38	5.48%
Vitamins and supplements	37	5.34%
Nasal decongestants/Vasoconstrictors	31	4.47%
Antipyretics	30	4.33%
Antacids	13	1.88%
Ear drops	11	1.59%
Nasal corticosteroids	10	1.44%
Laxatives	10	1.44%
Medication against flatulence	6	0.87%
Systemic corticosteroids	6	0.87%
Antiasthmatics	5	0.72%
Anthelmintics	5	0.72%
Antidiarrheals	4	0.58%
Central nervous system stimulants	1	0.14%

Source: Authors' own data.

When the participants were asked about the symptoms that led them to self-medicate, the following data was obtained: 97 (12.63%) of the students reported headache, 82 (10.68%) colds/influenza, 77 (10.03%) muscle pain, and 71 (9.24%) reported fever (Table 7).

Table 7 - Symptoms that led students to self-medicate

Symptom	*N*	*%*
	768	**100.00**
Headache	97	12.63%
Cold and influenza	82	10.68%
Muscle pain	77	10.03%
Fever	71	9.24%
Stomach pain	67	8.72%
Allergies	55	7.16%
Throat inflammation/infection	45	5.86%
Nausea	41	5.34%
Rhinitis	36	4.69%
Toothache	35	4.56%
Sinusitis	35	4.56%
Anxiety/depression/insomnia	33	4.30%
Intestinal pain	25	3.26%

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ISSN 2763-5783
DOI: https://doi.org/10.24980/ucm.v12i14.5992

Symptom	*N*	*%*
	768	**100.00**
Ear inflammation/infection	18	2.34%
Reflux	18	2.34%
Skin lesions	18	2.34%
Difficulty concentrating on studies	12	1.56%
Lung diseases	3	0.39%

Source: Authors' own data.

4 DISCUSSION

When considering this perspective, it is important to emphasize how a Google Form populated with the self-medication questionnaire was made available to 150 nursing students via the WhatsApp® application. At the time, this digital instrument was considered easy to use. However, this plan was not attractive, and this is believed to be related to an excessive number of questions (BOHOMOL; ANDRADE, 2020). An invitation and two more reminders were sent to the university's WhatsApp® nursing groups, and it was assumed that just the initial invitation would be enough for a significant number of students to accept it, but few students responded to the invitation and the first reminder, making it necessary to send the second reminder. In the end, 115 students answered the questionnaire, of which only 103 were included, the others being excluded due to the study criteria.

In relation to the epidemiological data in Table 1, there was a predominance of female respondents (87.38%). The most numerous age group was 18 to 20 years (50.49%), and the 1st and 3rd semesters had the largest number of respondents.

Table 2 shows that self-medication is common among nursing students at Unifunec, regardless of the semester studied. According to Gama e Secoli (2017), the practice of self-medication among health students is a public health problem due to its epidemiological relevance and negative impact.

Self-medication was undoubtedly practiced by 90.29% (93 students), showing that a large number of students practiced it (Table 2). To confirm this data, a study carried out in other higher education institutions showed that 99.2% of students practiced self-medication (BOHOMOL; ANDRADE, 2020). It's important to note that 66.02% of these students said they did not need a prescription to buy the medication.

It should be noted that the reason pointed by 48.54% of the students to self-medicate was because they had done it before and it solved their problem (Table 3). It is important to avoid using medicines on one's own, as this practice favors the occurrence of adverse health

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ISSN 2763-5783
DOI: https://doi.org/10.24980/ucm.v12i14.5992

events. The Brazilian National Health Surveillance Agency warns people not to relate old or similar symptoms of family members to current symptoms, emphasizing that medication that was once effective can be harmful without the guidance of a health professional (ANVISA, 2020).

It was shown that 41.75% of the students had medical insurance coverage (Table 4). Therefore, it is understandable that health insurance, which could contribute to easy and quick access to a qualified professional, does not influence the practice of self-medication among nursing students. Table 4 also cross-references the students' ages with the question of why they have ever self-medicated. Thus, the statistical analysis showed a significant correlation ($p < 0.05$).

Another relevant point is the correlation between the practice of reading the medication's directions leaflet and the students' term in the course (Table 5), showing that from the 3rd semester onwards, students feel it more necessary to read the leaflet. It should be noted that the pharmacology subject begins in the 3rd semester, according to the nursing curriculum at Unifunec, which correlates with the reason why students are always interested in reading the directions leaflet. Table 5 also shows that students with previous training also read the directions leaflet, reinforcing the fact that the more knowledge they have, the more information they seek about the drugs. In this analysis, a significant difference was demonstrated ($p < 0.05$).

The most relevant drug classes were analgesics (n = 85) and anti-inflammatory drugs (n = 80), with a difference of 0.73% (Table 6). These were followed by antipyretics (n = 65), muscle relaxants (n = 60), and cough syrups (n = 58). It should be noted that the students could report more than one drug in the questionnaire, resulting in a total of 693 drug combinations.

The symptoms that led to the indiscriminate use of medication range from a simple headache to lung diseases. The most common reasons for self-medication were headaches (n = 97), colds/influenza (n = 82), muscle pain (n = 77), fever (n = 71), and stomach pain (n = 67) (Table 7). It should be noted that the students could report more than one symptom in the questionnaire, resulting in a total of 768 combinations of symptoms. Regarding this aspect, other studies carried out with nursing students pointed to the same classes of drugs and symptoms as being the most common in self-medication (NOGUEIRA *et al.*, 2019).

The habit of self-medication was found in a nursing course, which recommends the implementation of an educational proposal of including the topic of self-medication in the curriculum of undergraduate nursing courses (TOGNOLI *et al.*, 2019), with the aim of reducing this practice and training increasingly qualified professionals.

Unifunec Científica Multidisciplinar
ISSN 2763-5783
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5 CONCLUSION

The practice of indiscriminate use of medication is prevalent among nursing students. It is extremely important to emphasize the students' increasing commitment over the course to reading the medication's directions leaflet, showing their interest in deepening their cognitive knowledge about medication. It is clear that the most commonly used drug classes are consistent with the symptoms reported by the students, reflecting their knowledge about drugs, but this is also a concern about how they are using their own learning to self-medicate.

It can be concluded that the university plays an important role in the lives of students, given the need for guidance and awareness-raising about self-medication and its health risks during the students' undergraduate years.

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