



Original Article

# Self-Medication Practices among Undergraduate Nursing Students

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**Introduction:** Self-medication, as one of the elements of self-care, is the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms. Studies revealed that there is an increase in trends of self-medications particularly among youth. Hence, there is a need to know the prevalence of self-medication practices among university undergraduate students. **Objectives:** Aim of this study is to identify the factors and prevalence of self-medication practices among undergraduate nursing students in Eastern University, Sri Lanka. Also, to assess the knowledge and attitude of undergraduate nursing students towards the self-medication practices. **Methodology:** It is a cross-sectional descriptive study, was conducted among undergraduate nursing students from Faculty of Health Care Sciences, Eastern University, Sri Lanka. Whole population was considered as study samples. A structured self-administered administered questionnaire was used to collect data. **Results and Discussion:** Most of the participants were using self-medications and the practices. Students gain knowledge on self-medication practices, when their year of study increases. Age and year of study have significant relationship with knowledge on self-medication and its usage. 81% of participants had positive attitude towards self-medication and People with whom students are living significantly associated with their attitude. **Conclusion:** Findings of present study show that majority of undergraduate nursing students are knowledgeable on self-medication practices and they have positive attitude towards the usage and its consequences. Even though, more awareness regarding self-medication practices are needed.

**Key words:** Attitude, Knowledge, Practices, Self-medication, Students, University.

## 1. INTRODUCTION

Self-medication is the use of non-prescribed medicines by people based on their own initiatives. Self-medication is defined as “obtaining and consuming medication without professional supervision regarding indication, dosage, and duration of treatment”<sup>1</sup>. The concept of self-medication exists since ages and it is prevalent throughout the world<sup>2</sup>. Self-medication, as one of the elements of self-care, is the selection and use of medicines by individuals to treat self-

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recognized illnesses or symptoms<sup>3</sup>. Self-medication is like a double edged sword, at one end it helps in reducing the burden over the health care system and thereby reduces the cost of health care<sup>4</sup>. But on the other end, improper self-medication practices may lead to serious adverse drug reactions<sup>5</sup> and it may also augment the antibiotic resistance which is an emerging problem worldwide.

Self-medication is widely practiced in both developed and developing countries, especially in developing countries as many drugs are dispensed over the counter without prescription<sup>6,7</sup>. As a result, medications may be approved as being safe for self-medication by the national drug regulatory authority. Such medicines are normally used for prevention or treatment of minor ailments or symptoms, which do not justify medical consultation. In some chronic or recurring illnesses, after initial diagnosis and prescription, self-medication is possible with the doctor retaining an advisory role<sup>8</sup>. Analgesics, antibiotics, and cough syrups are most commonly used drugs without prescription<sup>9</sup>.

Studies revealed that there is an increase in trends of self-medication particularly among youth. This can be attributed to socio-economic factors, such as life style, ready access to drugs, increased potential to manage certain illnesses through self-care, greater availability of medicinal products, socio-demographic, epidemiological, availability of healthcare and health professionals, law, society and exposure to advertisement, high level of education and professional status<sup>4</sup>. Self-medication is not totally prohibited and the WHO sets criteria for responsible self-medication as a part of self-care to improve the health care system<sup>3</sup>. Hence, there is a need to know the prevalence of self-medication practices among University undergraduate students.

There were very limited studies conducted in Sri Lanka. The expected outcome will bring out the factors, which are contributing to take self-medications. Through this study, researchers can identify the factors and prevalence of self-medication practices among undergraduate students in Eastern University, Sri Lanka. Also, researches can assess the knowledge and attitude of undergraduate students towards the self-medication practices. So far, there were only few studies conducted in some other state universities in Sri Lanka. However, there were no any studies performed in Eastern University, Sri Lanka, which leads an urges to this proposed study to identify the Self-medication practices among undergraduate students in Eastern University, Sri Lanka.

## 2. MATERIAL AND METHODS

It is a cross-sectional descriptive study, was conducted among undergraduate nursing students from Faculty of Health Care Sciences, Eastern University, Sri Lanka. Whole population was considered as study samples. Seventy seven undergraduate nursing students of first year to final year were included in this study as participants. Undergraduate nursing students who were not willing to participate in this

study were excluded. A structured self-administered administered questionnaire was used to collect data. The questionnaire included basic demographic characteristics and living habits of participants, knowledge on self-medication practices and attitude towards self-medication practices. Research proposal was submitted to Ethics Review Committee of Faculty of Health Care Sciences, Eastern University, Sri Lanka and ethical approval was obtained. Permission for data collection was obtained from Dean, Faculty of Health-Care Sciences of Eastern University, Sri Lanka. Participants were sensitized thoroughly about the purpose of the study prior to data collection. The written informed consent was obtained from each subject after explaining the procedure, purpose of the study and its benefits. After completion of data collection, the Statistical Package of Social Science (SPSS v.20) was used for entering, analyzing, and interpreting the data. The questionnaires were coded and subjects were identified by numbers, not by their names. Data obtained were kept under lock and key. Privacy, confidentiality and anonymity of subjects were ensured throughout the study. Also participants were informed that they have the right to withdraw from the study at any stage without penalty.

## 3. RESULTS

### *Description of Socio-demographic characteristics of participants.*

There were 77 undergraduate nursing students participated in this study, among them 61 of them were females. Most of them were 24 years old and 31.2% were in second year. While considering the stay during the study, 74% of participants were staying with roommates. Most of the student's parents were earning between Rs.10, 000.00 and Rs.30, 000.00 per month. Among the study population 70.1% were Sinhalese where 24.7% and 5.2% were Tamils and Muslims respectively. Majority of participants (51.9%) spent 1-2 hours for studying per day. While considering sports, 62.3% of nursing student spent less than 1 hour per day. Around 94.8% of students were not consuming alcohol, where 98.7% were not having smoking habit. (Table 1)

**Table 1: Socio-demographic characteristics of participants.**

Variables	Frequency	Percentage (%)
<b>Gender</b>		
Male	16	20.8
Female	61	79.2
<b>Age</b>		
21	10	13.0
22	17	22.1
23	18	23.4
24	21	27.3
25	09	11.7
26	02	02.6
<b>Study year</b>		
1 <sup>st</sup>	22	28.6
2 <sup>nd</sup>	24	31.2
3 <sup>rd</sup>	17	22.1
4 <sup>th</sup>	14	18.2

Living during undergraduate period		
Alone	03	03.9
with parents	15	19.5
with relatives	01	01.3
with room mate	57	74.0
with partner	01	01.3
Monthly family income		
<Rs.10000	06	07.8
Rs.10000-Rs.30000	38	49.4
Rs.30001-Rs.50000	21	27.3
>Rs.50000	12	15.6
Ethnicity		
Tamil	19	24.7
Sinhala	54	70.1
Muslim	04	05.2
Time spent for studying		
< 1 hour	03	03.9
1-2 hours	40	51.9
3-4 hours	27	35.1
> 4 hours	07	09.1
Time spent in sports		
< 1 hour	48	62.3
1-5 hours	22	28.6
6-10 hours	04	05.2
> 10 hours	03	03.9
Alcohol consumption		
Yes	04	05.2
No	73	94.8
Habit of Smoking		
Yes	01	01.3
No	76	98.7

**Types of drugs used for Self- medication**

Figure 1 describes about the types of self-medications used by undergraduate nursing students. Among the study population, 16% of them were using Analgesics and vitamin supplements. Creams were used by 14% of participants. When considering the antibiotic usage, 12% of respondents were using. Females consumed most of the Analgesics to get relief from menstrual pain.

**Significant factors associated with self-medication practices**

Most of the participants (64) were using self-medications and the practices have statistically significant relationship with age. When considering from age of 21 to 24 years old, self-medication usage have rising trend. The year of study, also have statistically significant relationship with self-medication usage. Here, when student learn about drug usages in their degree programme, they know how to use self-medication safely (Table 2, 3).

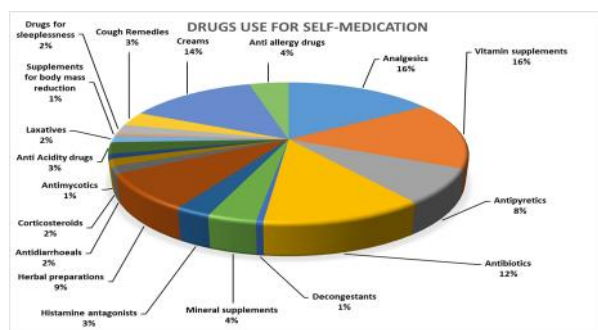


Fig 1: Types of drugs used for self-medication

Table 2: Association between Self-medication practice and Age

		Age					Total
		21	22	23	24	25	
Self-medication use	No	2	6	4	0	0	13
	Yes	8	11	14	21	9	64
Total		10	17	18	21	9	77

Pearson Chi-Square 12.198139, df5, p-0.032

Table 3: Association between Self-medication practice and Study year

		Study year				Total
		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	
Self-medication use	No	10	2	0	1	13
	Yes	12	22	17	13	64
Total		22	24	17	14	77

Pearson Chi-Square 18.448, df 3, p-0.000

**Knowledge on self-medication usage**

When considering the knowledge on self-medication usage, majority of respondents (52%) were having good knowledge where remaining had poor knowledge. This indicates that the participants are knowledgeable regarding the negative impact of self-medication (Figure 2)



Fig 2: Knowledge on self-medication usage

Table 2 describes the factors associated with knowledge on self-medication usage. While considering the gender, half of males had good knowledge on self-medication and its usages; 52.5% of females had good knowledge. When considering the year of study, 81.8% of first year students had poor knowledge, whereas 76.4% of participated students who were in third year having good knowledge on self-medication usage. It clearly shows that, when year of study increases, students gain knowledge regarding self-medication usage. Age and year of study have statistically significant relationship with knowledge on self-medication where other variables have not.

Table 4: Factors associated with knowledge on self-medication

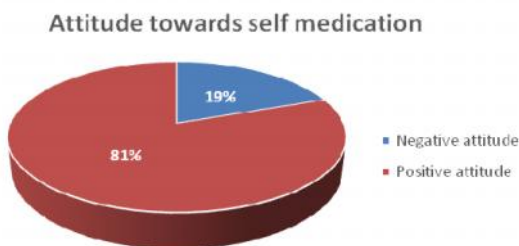
Variable		Poor knowledge	Good Knowledge	Pearson Square	Chi-p-value
Gender	Male	08	08	0.030	0.860
	Female	29	32		
Age	21	08	02	11.654	.039*
	22	09	08		
	23	10	08		
	24	05	16		
	25	05	04		
	26	00	02		
Study year	1st year	18	04	15.389	.001*
	2nd year	10	14		
	3rd year	04	13		

	4th year	05	09		
Living during the undergraduate period	Alone	00	03	4.974	0.289
	With parents	08	07		
	With relatives	00	01		
	With roommate	28	29		
	With partner	01	00		

\*p-value<0.05

**Attitude towards self-medication usage**

Most of the participants (81%) were having positive attitude towards self-medication usage. Which indicate that undergraduate nursing students from Eastern University, Sri Lanka are knowledgeable about process and consequences of self-medication usage (Figure 3).



**Fig 3: Attitude towards Self-medication usages**

Among the study population, 81% of males and 80% of females were having positive attitude towards self-medication practice. When considering the age, in all age categories, most of them were having positive attitude. Living with during undergraduate period has statistically significant relationship with attitude towards self-medication. Other variables don't show any significant relationship with attitude.

**Table 5: Factors associated with attitude towards self-medication.**

Variable	Attitude type		Pearson Chi-Square	df	p-value	
	Negative	Positive				
Gender	Male	03	13	0.007	1	0.933
	Female	12	49			
Age	21	00	10	7.413	5	0.191
	22	03	14			
	23	02	16			
	24	07	14			
	25	03	06			
Study year	1st year	02	20	4.164	3	0.244
	2nd year	04	20			
	3rd year	04	13			
	4th year	05	09			
Living during the undergraduate period	Alone	00	03	9.355	4	0.050*
	With parents	02	13			
	With relatives	01	00			
	With roommate	11	46			
	With partner	01	00			
Ethnicity	Tamil	04	15	2.677	2	0.262
	Sinhala	09	45			

Muslim 02 02

\*p-value<0.05

**4. DISCUSSION**

In this study, prevalence of self-medication usage among undergraduate nursing student were 83.12% where other studies also found moreover similar prevalence, 76% in Pakistan; 85% in Turkey, 88% in Croatia, 94% in Hong Kong<sup>10</sup>. Prevalence of self-medication practice has been increasing with year of study, similar trend seen in a study conducted among undergraduate nursing students<sup>11</sup>. Another study showed that, parental education and professional status was a major influencing factor for self-medication practices<sup>12</sup>.

The study conducted by Henry James<sup>13</sup> among first year medical students found that painkillers were most commonly used followed by antibiotics and fever relieving medicines. Zafar<sup>14</sup> in Pakistan, Abay<sup>15</sup> in Ethiopia and Ghosh<sup>16</sup> in Uttar Pradesh also found that, use of analgesics as self-medication for common conditions in their respective regions. In the current study, analgesics and vitamin supplements were the popular drugs, where cream and antibiotics take second and third places respectively.

Present study reveals that 52% of respondents have good knowledge regarding the adverse effects and consequences of self-medication practices. Even though, the majority of respondents reported this, they are around half of the participants. But another study done in Ethiopia shows that more than 80% of respondents had good knowledge regarding the adverse effects of self medication<sup>17</sup>. Similar to the present finding, a study conducted in India showed that only half of the respondents were knowledgeable<sup>18</sup>.

Many respondents reported positive attitudes towards self-medication practices in some other studies. For instance, 76.90% of respondents in Bahrain<sup>13</sup>, 85% of respondents in India<sup>19</sup> and 55.50% of respondents in Gondar<sup>15</sup> had positive attitudes towards self-medication practices. Present study also reveals similar finding, where 81% of participants were having positive attitude towards self-medication usage. According to the current findings, majority of undergraduate nursing students had good knowledge on negative impact of self-medication usage and positive attitude towards its consequences. Even though more awareness is needed for university students, because self-medication is one of the components of self-care, which is mostly practiced by youth. Adequate awareness will enhance the safe practice of self-medication and will help to free from negative impacts of medicines.

**5. CONCLUSION**

Findings of present study show that majority of undergraduate nursing students from Eastern University, Sri Lanka are knowledgeable on self-medication practices and they have positive attitude towards the usage and its

consequences. Even majority of students are knowledgeable, they are considered as half of the population. It means that, half of the population have not enough knowledge on self-medication practices. Therefore, it is important to provide them more awareness regarding self-medication practices, because they are related to health services and also pioneers who give knowledge and guidance to others in the community.

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