



Research Article

KNOWLEDGE, ATTITUDE AND PRACTICE OF SELF-MEDICATION IN COLLEGE STUDENTS

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ABSTRACT

Self-medication is a common practice worldwide and the irrational use of the drugs is a major cause of concern. Self-medication is an issue with serious global implication. The current study aimed to determine the Knowledge, Attitude and Behavior of self-medication in college students. The Study site was Faculty of Engineering and Technology, (Engineering and Pharmacy department) Annamalai University, Annamalai Nagar, Tamil Nadu. The Study design was consisting of Cross sectional study. The total study population was 100 students (respondents), in the students 50 from Pharmacy (healthcare students) and other 50 from engineering students (non-healthcare students). Total study period of six months. All the data were collected by questionnaire, it was containing 30 questions both open and closed type questions. The questions were distributed to 50 healthcare and 50 non-healthcare students for getting information regarding self-medication. Since inappropriate self-medication has the potential to cause serious harm, not only to students themselves but also to those whom they suggest medication. Prevalence of self-medication was high due to minor illness. However, there is no significant association between prevalence and gender of respondents. Health care students are more awareness about self-medication. It helps to conduct counseling programs about the potential risk of self-medication, which can help to prevent the harms of un-prescribed medication.

Keywords: Knowledge, Self-medication, Questionnaire, Attitude, Practice, Students

INTRODUCTION

In developing countries, self-medication is an important component of self-care and its most common practice. Self-medication is defined as the use of drugs to treat self-diagnosed illnesses or irregular use of a prescribed drug for a chronic disease¹. In traditionally, self-medication is described as the use of drugs, herbs or home remedies on advice of another individual or one's own initiative without consulting a doctor². WHO defines self-medication as, "use of medication by a patient on his own initiative or on the advice of a pharmacist, or a lay person, instead of consulting a medical practitioner"^{3,4}. The self-medication practice is common in worldwide, both developed and developing countries^{5,6}. And might even be more common that the use of prescribed medication⁷. These medications are easily accessible to common man. Over the counter drugs gave rise to the concept of self-medication. 'Self-medication' is defined as 'obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment'^{8,9}. The majority of the side effects were developed frequently more serious than the original disease for the consumption of self-medications⁸.

The potential risk/ benefit of self medication should be compared with potential risks/ benefits of prescription medicines. Self-medication is an area where health authorities and governments need to ensure that it is done in a responsible manner, ensuring that safe drugs are made available over the counter and the consumer is given adequate information about the use of drugs and when to consult a doctor¹⁰⁻¹². The present study was undertaken to determine the knowledge, attitude and practice of self-medication in students of Annamalai University, Chidambaram, Tamil Nadu.

MATERIALS AND METHODS

This study was conducted in the students of Faculty of Engineering and Technology, (Engineering and Pharmacy department) Annamalai University, Annamalai Nagar, Tamil Nadu. This study design was Cross sectional study. Totally 100 students (respondents) in the students are 50 from pharmacy (healthcare students) and other 50 from engineering students (non-healthcare students). Study period was six months. All the data were collected by questionnaire. The questionnaire containing 30 questions both open and closed type questions. The questions were distributed to 50 healthcare students (Pharmacy) and 50 non-healthcare students (Engineering) for getting information regarding self-medication. The collected data were systematically analyzed and tabulated. The basic statistics were performed by using MS excel.

RESULTS

Table 1: Respondents socio-demographic character n = 100

Variables	Frequency	Percentage
Age (years)		
18	06	06.00
19-20	41	41.00
21-26	53	53.00
Gender		
Male	50	50.00
Female	50	50.00
Education stream		
Healthcare students (Pharmacy)	50	50.00
Non-healthcare students (Engineering)	50	50.00

Table 2: Source of self-medication

Type of respondents	Source of information			
	Friends or guardian	Chemists or Senior	Advertisement/ Books	Prescriptions or Experience
Healthcare students	15(30%)	05(10%)	05(10%)	25(50%)
Non-healthcare students	11(22%)	08(16%)	07(14%)	24(48%)

Table 3: Reason for not consulting doctor

Reasons	Type of respondents			
	Healthcare Students	%	Non-Healthcare students	%
Minor illness	15	30%	08	16%
Far place	08	16%	04	8%
Money constraints	10	20%	07	14%
Time constraints/Late night	02	4%	11	22%
Didn't feel the need	03	6%	01	2%
Doctor not available	08	16%	10	20%
Some known doctor	00	0%	00	0%
Previous experience	04	8%	09	18%

Table 4: Common questions asked for respondents

Questions related to knowledge, attitude, and practice of self medication	Healthcare Students		Non-healthcare students	
	Yes	No	Yes	No
Self medication is harmful?	36(72%)	14(28%)	27(54%)	23(46%)
Knowledge about medication?	36(72%)	14(28%)	12(24%)	38(76%)
Take medicine at this moment?	15(30%)	35(70%)	11(22%)	39(78%)
OTC medicines are effective and safe?	18(36%)	32(64%)	38(76%)	12(24%)
Experience any side effect with medicine?	15(30%)	35(70%)	24(48%)	26(52%)
Did you inform your pharmacist about side effect of drugs you have experienced?	17(34%)	33(66%)	29(58%)	21(42%)
Take nutritional supplement without ask physician?	30(60%)	20(40%)	42(84%)	08(16%)
If you have same disease and purchase same medicine?	27(54%)	23(46%)	30(60%)	20(40%)
Medicines used at long period time?	37(74%)	13(26%)	16(32%)	34(68%)
Will you prepare to go an alternative practitioner?	27(54%)	33(66%)	20(40%)	30(60%)
Enough medicine information dispensed by pharmacist?	28(56%)	22(44%)	41(82%)	09(18%)
Costly drugs are more effective?	40(80%)	10(20%)	38(76%)	12(24%)
Same medication used for same symptoms?	31(62%)	19(38%)	18(36%)	32(64%)
Bought drug without prescription?	11(22%)	39(78%)	39(78%)	11(22%)
Having chronic illness?	13(26%)	37(74%)	05(10%)	45(90%)
Will you bring all medicines you are currently taking?	20(40%)	30(60%)	27(54%)	23(46%)
Consulting about special or uncommon medicines?	32(64%)	18(36%)	48(96%)	02(4%)
Discontinue your medicine by yourself?	30(60%)	20(40%)	38(76%)	12(24%)
Given prescription to others?	07(14%)	43(86%)	09(18%)	41(82%)

Table 5: Disease informed on

Type of Respondents	Pharmacy	Consult doctor
Healthcare Students	25 (50%)	25(50%)
Non-healthcare Students	27 (54%)	23 (46%)

Table 6: Medicine taken is based on

Type of respondents	Advertisement	Consult Pharmacists
Healthcare students	07 (14%)	43 (86%)
Non-healthcare students	21(42%)	29 (58%)

Table 7: Method for getting prescription

Type of Respondents	Get prescription method			
	Immediate	%	Wait at sometime	%
Healthcare Students	20	40%	30	60%
Non-healthcare Students	24	48%	26	52%

Table 8: Type of medicines used

Medicines use	Type of respondents	
	Healthcare students	Non-healthcare students
Use medicine until symptoms subside	40 (80%)	22 (44%)
Use medicines up to given regimen	10 (20%)	28 (56%)

Table 9: Information-self medication

S. No.	Information	Type of respondents			
		Healthcare Students	%	Non-healthcare Students	%
1.	Previous prescription	15	30%	22	44%
2.	Pharmacist	05	10%	08	16%
3.	Books or internet	06	12%	06	12%
4.	Friends or family	24	48%	14	28%

Table 10: Common health problems

S. No.	Health problems	Type of respondents			
		Healthcare Students	%	Non-healthcare Students	%
1.	Headache or mild pain	25	50%	16	32%
2.	GIT problems	05	10%	04	8%
3.	Eye and ear problems	12	24%	02	4%
4.	Vomiting	08	16%	10	20%
5.	Others	00	0%	18	36%

Table 11: Reason using self-medication

S. No.	Reasons	Type of respondents	
		Healthcare students	Non-healthcare students
1.	Illness was Minor	10 (20%)	10 (20%)
2.	No medical service Available	05 (10%)	14 (28%)
3.	Lack of time to attend healthcare facilities	15 (30%)	00 (0%)
4.	Cost of consultations with doctor	15 (30%)	08 (16%)
5.	Waiting time in healthcare facilities	00 (0%)	12 (24%)
6.	Others	05 (10%)	06 (12%)

Table 12: Advantages

S. No.	Reason	Type of respondents			
		Healthcare Students	%	Non-healthcare Students	%
1.	Time saving	17	34%	15	30%
2.	Easy availability	13	26%	08	16%
3.	Immediate relief	20	40%	27	54%

Table 13: Disadvantage

S. No.	Reason	Type of respondents			
		Healthcare Students	%	Non-healthcare students	%
1.	Untreated	01	2%	26	52%
2.	Adverse drug Reaction	45	90%	15	30%
3.	Fatal if used in access	04	8%	09	18%

The above data was collected from 100 numbers of students from Annamalai University, Chidambaram. The collected data was analyzed by using descriptive statistics in term of frequency and presented in different tables.

Table 1 shows that out of 100 respondents, concerning age (6 %) were age group of 18, 41 (41 %) were in age group of 19-20 years. And 53 (53 %) were in age group of 21-26 years. Regarding gender respondents, 50 (50 %) were male, and 50 (50 %) were female. with regard to stream of professional education, 50 respondents are selected from each stream i.e. healthcare students (Pharmacy) and non-healthcare students (Engineering). In particularly healthcare and non-healthcare students were 25 male and 25 female students. In-between the age is 18 to 26.

Table 2 shows that-out of 100 respondents, for healthcare students 15 (30 %) had reported friends or guardian and 05 (10 %) had reported chemists or senior, 05 (10 %) had reported books, 25 (50 %) had reported prescription or experience followed by non health care students 11 (22 %) had reported friends or guardian, 08 (16 %) had reported chemists or senior, 07 (14 %) had reported advertisement or books, 24 (48 %) had reported prescription or experience.

Table 3 shows that-out of 100 respondents, for healthcare students 15 (30 %) had reported minor illness, 08 (16 %) had reported far place, 10 (20 %) had reported money constraints, 02 (4 %) had reported time constraints, 03 (6 %) had reported didn't feel the need, 08 (16 %) had reported doctor not available, 04 (8 %) had reported previous experience. And followed by non healthcare students 08 (16 %) had reported minor illness, 04 (8 %) had reported far place, 07 (14 %) had reported money constraints, 11 (22 %) had reported time constraints, 1 (2 %) had reported didn't feel the need, 10 (20 %) had reported doctor not available and 09 (18 %) had reported previous experience.

Similarly some basic questions (related to Knowledge, Attitude, and Practice of Self Medication) asked for the 100 respondents. The result was shown in table 4.

Table 5 shows that out of 100 respondents, disease informed for pharmacy or consult doctor, was asked to the healthcare students, 25 (50 %) had reported pharmacy, 25 (50 %) had reported consult doctor. followed by non healthcare students 27 (50 %) had reported pharmacy, 23 (46 %) had reported consult doctor.

Table 6 shows that out of 100 respondents, take medicine are based for advertisement or consult pharmacist was asked to the

healthcare students found that 07 (14 %) had reported advertisement, 43 (86 %) had reported consult pharmacists. And the non healthcare students 21 (42 %) had reported advertisement, 29 (58 %) had reported consult pharmacists.

Table 7 shows that-out of 100 respondents, for healthcare students 20 (40 %) had reported immediate, 30 (60 %) had reported wait at some time. Non healthcare students 24 (48 %) had reported immediate and 26 (52 %) had reported wait sometimes.

Table 8 shows that-out of 100 respondents, for healthcare students found that 40 (80 %) had reported use medicine until symptoms subside, 10 (20 %) had reported use medicine up to given regimen. And non-healthcare students found that 22 (44 %) had reported use medicine until symptoms subside, 28 (56 %) had reported use medicine up to given regimen.

Table 9 shows found that-out of 100 respondents, information of self-medication was asked to healthcare students 15 (30 %) had reported previous prescription, 05 (10 %) had reported pharmacist, 06 (12 %) had reported books or internet, 24 (48 %) had reported friends or family. And non-healthcare students found that 22 (44 %) had found that previous prescription, 08 (16 %) had reported pharmacist, 06 (12 %) had reported books, 14 (28 %) had reported friends or family.

Table 10 shows that-out of 100 respondents, common health problem was asked to the healthcare students 25 (50 %) had reported headache or mild pain, 05 (10 %) had reported GIT problem, 12 (24 %) had reported eye and ear problem, 08 (16 %) had reported vomiting. And non-healthcare students found that 16 (32 %) had reported headache, 04 (8 %) had reported GIT problem, 02 (4 %) had reported eye and ear problems, 10 (20 %) had reported vomiting, 18 (36 %) had reported others.

Table 11 shows that-out of 100 respondents, reason for using self-medication was asked to the healthcare students found that 10 (20 %) had reported illness was minor, 05 (10 %) had reported no medical service available, 15 (30 %) had reported lack of time to attend healthcare facilities. 15 (30 %) had reported cost of consultations with doctor, 05 (10 %) had reported to others. And non-healthcare students found that 10 (20 %) had reported illness was minor, 14 (28 %) had reported no medical service available, 08 (16 %) had reported cost of consultations with doctor, 12 (24 %) had reported waiting time in healthcare facilities, 06 (12 %) had reported others.

Table 12 shows that-out of 100 respondents, advantages of self-medication were asked to the healthcare students found that 17 (34 %) had reported time saving, 13 (26 %) had reported easy availability, 20 (40 %) had reported immediate relief. And non-healthcare students found that 15 (30 %) had reported time saving, 08 (16 %) had reported easy availability, 27 (54 %) had reported immediate relief.

Table 13 shows that-out of 100 respondents, disadvantage of self-medication was asked to the healthcare students found that 01 (2 %) had reported untreated, 45 (90 %) had reported adverse drug reaction, 04 (8 %) had reported fatal if used in access. And non-healthcare students found that 26 (52 %) had reported untreated, 15 (30 %) had reported adverse drug reaction, 09 (18 %) had reported fatal if used in access.

DISCUSSION

This study enrolled 100 respondents in Healthcare (Pharmacy) and Non- healthcare (Engineering) students. The mean

knowledge score was healthcare students 72 % and Non-healthcare students only 24 % (maximum score being 100) indicating a good knowledge scores.

Studies regarding self-medication practice and knowledge among medical students have been carried out. A study performed on 125 premedical and undergraduate medical students showed mean knowledge score, perception, and total scores of 73.45, 62.75, and 136.2 (maximum possible scores of 105, 95, and 200) respectively¹³. While other study was found mean knowledge, attitude, and total score of 74.54, 67.18, and 141.73 (maximum possible scores of 100, 100, and 200 respectively¹⁴. The results were different from the findings in our study due to difference in the number of statements. Healthcare student's scores are of 72, 60 and 72 (maximum possible scores of 100,100 and 100). And Non-healthcare student scores of 24, 84 and 54 (maximum possible scores of 100,100 and 100). Similarly another study was showed that more than half of the respondents had a good knowledge about self-medication, the attitude was positive and they favored self-medication saying that it was acceptable¹⁵. On the contrary a study reported that the knowledge of the respondents about self-medication was poor, the practice was common and inappropriate however the respondents had adequate knowledge about the benefits and risks of self-medication¹⁶.

Studies on self-medication practice show a wide range of results with the prevalence ranging from 26.2 % to 92 %^{18,19}. In our study, self-medication was practiced (Healthcare and Non-healthcare) by 72 % of the respondents which was comparable to the prevalence of 82.3 % and 79.9 % in the study done in India and Serbia respectively^{20,21}.

Other studies also show increased self-medication practice with progress to higher level of medical education between second and fourth semester students, between first and fourth year, and another study done in between first year and final year^{16,22,23}. However, the present study did not find any significant differences in prevalence of self-medication among junior and senior students, it is similar to the study done in Aruba and Nagpur, India^{13,17}.

We recommend that modifications in teaching-learning methodology be planned to increase the level of idea and concept among Healthcare (Pharmacy) and Non- healthcare (Engineering) students regarding self-medication so that they can benefit their patients in the future and secure rational practices in their profession.

CONCLUSION

Since inappropriate self-medication has the potential to cause serious harm, not only to students themselves but also to those whom they suggest medication. Analgesic and antipyretic were most commonly used drugs. Prevalence of self-medication was high due to minor illness. However, there is no significant association between prevalence and gender of respondents. Health care students are more awareness about self-medication. Although the self-medication practice is inevitable, there is great responsibility of drug regulatory authorities and health care professional about the control of self-medication by explaining the students about total impact of drugs on the body. This study was limited to single setting. The study will be helpful to provide base line data about prevalence and practice of self- medication. It helps to conduct counseling programs about the potential risk of self-medication, which can help to prevent the harms of un-prescribed medication. Restriction of sale of drugs with potentially harmful effects can be implemented effectively with

monitoring systems between the significant stakeholders. The concerned authority should only allow pharmacy graduates to sale the drugs, so that potential high risk due to drug dose, duration can be controlled to some extent.

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