

Knowledge, Attitude and Practice of Self-Medication among Medical 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 by medical students. A descriptive cross-sectional study was conducted among medical students currently studying first year to assess knowledge, attitude and practice regarding self-medication in Chitwan Medical College, Bharatpur, Nepal. Seventy five students studying in first year were selected for the study using stratified random sampling technique and data was collected using a semi-structured self-administered questionnaire. The study finding revealed, the mean age of 75 enrolled students was 20 years, 65.3% were in the age group of 17-20 years. Most of them were female (72%). Seventy three point three percent belong to urban area. Prevalence rate of self-medication of one year period seems high i.e. 84% and 68.25% in were females. The most common sources of information used by the respondent were pharmacist (60.31%) and text book (46.03%). More than half of the respondent found to have a good knowledge about self-medication regarding definition, adverse effect and different types of drug. The attitude was positive towards self-medication and favored self-medication saying that it was acceptable. The principal morbidities for seeking self-medication include cold and cough as reported by 85.7% followed by pain 76.2%, fever 73%, diarrhea 47.6% and dysmenorrheal 46%. Drugs / drugs group commonly used for self-medication included analgesics 75.8%, and anta-acids 53.2% and antipyretic 46.3%. Among reasons for seeking self-medication, 79.2% felt that their illness was minor while 61.9% preferred as it is due to previous experience. This study shows that self-medication is widely practiced among first year students of this medical institution. There is dire need to make them aware about the pros and cons of self-medication in order to ensure safe usage of drugs.

Keywords: Knowledge, Attitude, Practice, Behavior, Self-medication, Medical student.

I. Introduction

Self-medication is the treatment of common health problems with medicines that are taken on patient's own initiative or on advice of a pharmacist, without professional supervision. It is now becoming a common practice in many countries mainly due to lack of access to health care, easy availability of OTC drugs in market and poor drug regulatory practices [1]. Self-medication is the use of drugs without a doctor's advice. Medicines may be recommended by a family member or a friend or a pharmacist. Reasons for Self-medication are lack of time to see a doctor, inability to get a quick appointment, illness may be too mild and long distance away. Too much information culled from the internet or magazines make people confident about treating their own illness. A doctor's fees may be unaffordable. The Dangers of Self-medication are many such as habituation, allergic reactions that may be severe or even fatal. Under-dosage may not cure the symptom. Over-dosage can produce collateral damage to many organs. By masking the symptom temporarily, it will be difficult for a doctor to arrive at a correct diagnosis NSAID drugs like brufen increase the risk of stroke [2].

Unaware of the appropriate drugs for the particular illnesses, their doses, and adverse effects, the misuse of medications as prescribed by the pharmacist, or a family member, or anyone in general may lead to such people literally playing with their lives at their own mercy. But with illiteracy, there is no stop to this. On the contrary, the situation is entirely different in the case of medicos/dental or nursing students [3]. Self-medication is an important health issue especially in developing countries. Various studies reported that self-medication may lead to delay in care seeking which results in paradoxical economic loss due to delay in the diagnosis of underlying conditions and appropriate treatment. Also, self-medication can lead to interaction between drugs which would be prevented, had the patient sought care from a licensed medical practitioner. Practicing self-medication for drugs like antibiotics might lead to drug resistance; and hence, there needs to be a check on these practices [4].

Self-medication involves the use of medicinal products by the consumer to treat self-recognized disorder or symptoms or the intermittent or continued use of medication prescribed by the physician for chronic or recurring disease or symptoms. Self-medication has number of potential risks; Incorrect self-diagnosis,

failure to seek appropriate medical advice promptly, incorrect choice of therapy, failure to recognize special pharmacological risks, rare but severe adverse effects, failure to recognize or self-diagnose contraindication, interaction, warning and precaution, incorrect route and excessive dosage, risk of dependence and abuse[5]. A survey conducted for first-year medical students of the Arabian Gulf University, Bahrain (including some Saudi students) suggested that these students had a poor knowledge about adequate self-medication whereas the knowledge of medication usefulness and harms was adequate. The attitude towards self-medication was positive and although the practice of self-medication was common, it was in most cases inadequate [6].

The study of self-medication practice among university medical undergraduates is very important as they are a segment of the population that is highly educated and with access to information regarding their health. Looking at this practice among medical undergraduates is also very vital as they represent the future generation of drug prescribers and health educationalist [7]. Self-medication was practiced with a range of drugs from the conventional anti-pains to antibiotics. Although the practice of self-medication is inevitable; drug authorities and health professionals need to educate students about the pros and cons of self-medication [8].

Self-medication result in the wastage of the resources, increase resistance of pathogens and generally cause serious health hazards such as adverse drug reaction, prolong suffering and drug dependence [9]. Self-medication is a very widespread practice among students, and particularly those in medical fields. Several studies have addressed the way doctors and medical students engage in this practice. The most recent study published by Indian researchers, shows that the way they self-medicate evolves along with the increase in their knowledge [10]. Only few researches have been carried out in our part of population and it is essential to study in our contest. So, we have selected this topic.

Therefore, self-medication has many demerits which may directly harms to our physical as well as mental health. In this study, we have prospectively study about self-medication among medical students in Chitwan Medical College. Firstly, we have sought to estimate the prevalence of self-medication. Secondly we have sought to determine the knowledge, attitude and behavior of self-medication.

II. Materials And Methods

Descriptive cross sectional study design was used in the study. The population of the present study included students of Chitwan Medical College Teaching Hospital (CMCTH) studying in first year in various faculties i.e. BN, B.Sc Nursing, MBBS, BDS and B. Pharmacy. Stratified sampling technique was used to select 75 subjects for the study. Semi structured self-administered questionnaire was developed to collect the data. The research instrument consists of four parts: Part I: Question related to demographic information. Part II: Question related to knowledge of self-medication Part III: Question related to attitude towards self-medication Part IV: Question related to practice of self-medication. The content validity of the instrument was maintained and the reliability was calculated ($r=0.863$). Administrative and ethical approval was taken from Institutional Review Board of CMCTH. Written consent was obtained from each respondent. In the study, researcher themselves collected data after distributing semi-structured questionnaire to the participant. The collected data was checked, reviewed and organized daily for its completeness and consistency. The data was entered in statistical package for social science (SPSS) version 20 and then analyzed and interpreted in term of descriptive statistics (frequency, percentage, mean and median etc). The findings of the study are presented in tables.

III. Results

The data was collected from 75 numbers of students from Chitwan Medical College, Chitwan. The collected data was analyzed by using descriptive statistics in term of frequency and presented in different tables.

Table 1: Respondents Socio-Demographic Characteristics n=75

Variables	Frequency	Percentage
Age (years)		
>20	49	65.3
21-25	24	32.0
26-30	2	2.7
Mean age and S.D: (20.67± 2.33) years, Min=17yrs; Max=30yrs		
Sex		
Male	21	28
Female	54	72
Residence		
Rural	21	28
Urban	54	72
Education Stream		
BN	15	20.0
BSc Nursing	15	20.0
MBBS	15	20.0
BDS	15	20.0
B.Pharmacy	15	20.0

Table 1 shows that out of 75 respondents: Concerning age, 49 (65.3%) were in age group of below 20 years, 24 (32%) were in age group of 21-25 years and 2 (2.7%) were in age group 26-30 years. The mean age was of 20.66 and SD 2.33. Regarding sex of respondents, 54 (72%) were female and 21 (28%) were male. Concerning residence of respondents 54 (72%) were from urban area and 21 (28%) was from rural area. With regard to stream of professional education, 15 respondents are selected from each stream i.e BN, Bsc Nursing, BDS, MBBS and B. Pharmacy.

Table 2: Prevalence of self-medication n=75

Self-medicines taken in last one year	Frequency	Percentage
Yes	63	84
No	12	16

Above table shows prevalence of self-medication among medical students, 63 (84%) take self-medication and 12 (16%) do not take self-medication.

Table 3: Reported symptoms till one year n=75

Reported symptoms or diagnosis **	Frequency	Percentage
Headache	52	69.3
Cold/flu	42	56
Fever	41	54.7
Diarrhea	12	16
Sinusitis	9	12
Insomnia	5	6.7

** Multiple responses

Above table shows that:-Out of 75 respondents, 52 (69.3%) had reported diagnosis headache followed by 42 (56%) had cold/flu, 41 (54.7%) had fever, 12 (16%) had diarrhea, 9 (12%) had sinusitis and 5 (6.7%) had insomnia.

Table 4: Respondent's source of information n=63

Sources of Information **	Frequency	Percentage
Pharmacist	38	60.31
Textbook	29	46.03
Senior	20	31.75
Advertisement	11	17.46

** Multiple responses

Out of 63 respondents, 38 (60.31%) use sources of information as pharmacist followed by 29 (46.03%) use sources of information as textbook, 20 (31.74%) use sources of information as senior, and 11 (17.46%) use advertisements.

1.1 Knowledge on self-medication:

Table 5: Respondent's knowledge on self-medication n=75

S N	Particulars **	Responses				
		Not at all	A little	Some	Quite a bit	Very much
1	Knowledge about definition of self-medication	2 (2.7%)	19 (25.3%)	21 (28.0%)	13 (17.3%)	20 (26.7%)
2	Knowledge about:-					
	a. Hazards due to change of timing	6 (8%)	19 (25.3%)	21 (28%)	5 (6.7%)	6 (8%)
	b. Hazards due to increase drug dose	3 (4%)	15 (20%)	29 (38.7%)	19 (25.3%)	9 (12%)
	c. Drug adverse reaction	1 (1.3%)	9 (12%)	27 (36%)	28 (37.3%)	10 (13.3%)
	d. Completing dose of drug	5 (6.7%)	19 (25.3%)	13 (17.3%)	20 (26.7%)	18 (24%)
3	Knowledge about					
	a. Antibiotics	1 (1.3%)	17 (22.7%)	26 (34.7%)	20 (26.7%)	11 (14.7%)
	b. Analgesics	1 (1.3%)	18 (24%)	23 (30.7%)	20 (26.7%)	13 (17.3%)
	c. Anta-acids	4 (5.3%)	21 (28%)	17 (22.7%)	20 (26.7%)	13 (17.3%)
	d. Anti-pyretic	1 (1.3%)	18 (24%)	22 (29%)	20 (26.7%)	14 (18.7%)

e.	Anti-spasmodic	17 (22.7%)	20 (26.7%)	14 (18.7%)	17 (22.7%)	7 (9.3%)
f.	Vitamins	2 (2.7%)	16 (21.3%)	25 (33.3%)	24 (32%)	8 (10.7%)
g.	Herbal	11 (14.7%)	27 (36%)	21 (28%)	9 (12%)	7 (9.3%)
h.	Anti-allergies	8 (10.7%)	22 (29.3%)	23 (30.7%)	13 (17.3%)	9 (12%)

** Multiple responses

Among 75 respondents, Knowledge on definition of Self-medication was asked to the medical students found that 21(28%) had some knowledge, 20 (26.7%) had very much knowledge, and 2(2.7%) were unknown about it. knowledge regarding hazards of change of drug's timing 21(28%) had a little knowledge, 19(25.3%) had little knowledge and 5(6.7%) had quite a bit knowledge. knowledge on hazard due to the increased drug dose 29(38.7%) had some knowledge 19 (25.3%) had little knowledge and 3(4%) had no knowledge. knowledge on drugs adverse reaction 28(37.3%) had quite a bit knowledge, 27(36%) had some knowledge and lowest 1(1.3%) had no knowledge. knowledge on completing dose of drugs 20(26.7%) had quite a bit knowledge, 19(25.3%) had little knowledge and 5(6.7%) had no knowledge at all. knowledge about antibiotics 26(34.7%) had some knowledge, 20(26.7%) had a quite a bit knowledge and only 1(1.3%) had no idea about it. Regarding the knowledge about analgesics medicines 23(30.7%) had a some knowledge, 20(26.7%) had quite a bit knowledge and only 1(1.3%) had no knowledge about this medicine. knowledge about anta-acids 21(28%) had a little knowledge, 20(26.7%) had a quite bit knowledge and only 4 (5.3%) had no idea about it. knowledge about anti-pyretic 22(29%) had some knowledge, 20(26.7%) had quite a bit knowledge. knowledge about anti-spasmodic 20(26.7%) had a little knowledge and 7(9.3%) had very much knowledge. knowledge about vitamin 25 (33.3%) had some knowledge and 24(32%) had a quite a bit knowledge and 2 (2.7%) had no idea about it. knowledge about herbal 27(36%) had a little knowledge, 21(28%) had some knowledge and 7(9.3%) had very much knowledge. knowledge about anti-allergies 23(30.7%) had a some knowledge, 9(12%) had a very much knowledge and 8(10.7%) had no knowledge about it.

Table 6: Respondents' level of knowledge regarding self-medication n=75

Level of Knowledge	Frequency	Percentage
Poor Knowledge (<34)	36	48.0
Good Knowledge (>35)	39	52.0

The table 6 shows that 39(52%) respondents had good level of knowledge regarding self-medication, followed by 36(48%) respondents had poor level of knowledge regarding self-medication.

1.2 Attitude on self-medication:

Table 7: Respondents Attitude regarding Self-medication

SN	Statement	Responses				
		Strongly agree	Agree	Unsure	Disagree	Strongly disagree
1	Self-medication is acceptable for medical students.	2 (2.7)	22 (29.3)	23 (30.7)	23 (30.7)	5 (6.7)
2	Medical students have good ability to diagnose the symptoms.	8 (10.7)	25 (33.3)	28 (37.3)	8 (10.7)	6 (8)
3	Medical students have good ability to treat symptoms.	8 (10.7)	23 (30.7)	31 (41.3)	11 (14.7)	2 (2.7)
4	Self-medication would be harmful if they are taken without proper knowledge of drugs and disease.	2 (2.7)	1 (1.3)	8 (10.7)	17 (22.7)	47 (62.7)
5	Medical license would be essential for better administration of drugs.	1 (1.3)	6 (8)	1 (1.3)	27 (36)	40 (53.3)
6	The course of medicines should be complete although the symptoms subside.	1 (1.3)	2 (2.7)	6 (8)	22 (29.3)	44 (58.7)
7	The pharmacist is a good source of advice/information about minor medical problems.	15 (20)	33 (44)	11 (14.7)	11 (14.7)	5 (6.7)
8	Medical students are likely to bother their doctors with minor problems always.	3 (4)	18 (24)	23 (30.7)	27 (36)	4 (5.3)
9	We should be careful with non-prescribed over the counter medicines.	2 (2.7)	3 (4)	10 (13.3)	36 (48)	24 (32)
10	Medical students should check the accompanied medication leaflet contain.	2 (2.7)	7 (9.3)	7 (9.3)	42 (56)	21 (28)

Percentages are placed in parenthesis

Above table shows that- Majority 23(30.7%) of respondents disagreed and 5(6.7%) were strongly disagree to the statement on self-medication is acceptable for medical students. 22 (29.3%) agreed, 2(2.7%) were strongly agreed and 23(30.7%) were unsure about it. Another statement medical students have good ability to diagnose the symptoms 25(33.3%) agreed, 8(10.7%) were strongly agreed, 14(18.7%) disagreed, 6(8%) were strongly disagreed and 28(37.3%) were unsure about it.

Similarly statement medical students have good ability to treat the symptoms found that 23(30.7%) agreed, 8(10.7%) were strongly agreed, 11 (14.7%) disagreed and 31(41.3%) were uncertain about it. Another statement self-medication would be harmful if they are taken without proper knowledge of drugs and disease as found 2(2.7%) strongly agreed, 47(62.7%) strongly disagreed, 17 (22.7%) were disagree only and 8(10.7%) were neutral.

Majority 40(53.3%) of the respondents strongly disagreed towards the statements medical license would be essential for better administration of drugs. 1(1.3%) were unsure about it, 6(8%) were agreed and 1(1.3%) strongly agreed towards it. Majority 44(58.7%) of the respondents strongly disagreed towards the statements the course of medicine should be complete although the symptoms subside, 22 (29.3%) were disagree only, 6(8%) were unsure and 2(2.7%) were agreed towards it.

Majority 33(44%) of the respondents agreed and 15(20%) strongly agree towards the statements the pharmacist is a good sources of advice/ information about minor medical problems. 11(14.7%) were unsure, 11(14.7%) were disagreed and 5(6.7%) strongly disagree towards it. Majority 27(36%) were disagreed and were strongly disagree 4(5.3%) about the statement medical students are likely to bother their doctors with minor problems always. 23(30.7%) were uncertain, 18(24%) were agreed and remaining 3(4%) strongly agreed towards it.

Majority 36(48%) of the respondents disagreed and 24(32%) were strongly disagree towards the statement medical students should be careful with non-prescribed over the counter medicines. 10(13.3%) were unsure, 3(4%) were agreed and 2(2.7%) agreed towards the statement. Majority 42(56%) of the respondents disagreed and 21(32%) strongly disagree towards the statement medical students should check the accompanied medication leaflet contain. 7(9.3%) were uncertain, 7(9.3%) were agreed and remaining 2(2.7%) strongly agreed towards it.

Table 8: Respondent's Level of Attitude regarding Self-medication n =75

Level of attitude	Frequency	Percentage
Negative(<34)	37	49.3
Positive(>35)	38	50.7

To assess the attitude towards Self-medication among medical students the criteria was formed positive and negative. Respondent's scored more than thirty five and less than thirty four fall in the group positive and negative respectively. Out of 75 respondent's 50.7% respondent's had positive attitude and 49.3% had negative attitude which indicate that majority of respondents had positive attitude towards Self-medication.

1.3 Practice of self-medication:

Table 9: Immediate response when students fall sick n=75

Immediate response **	Frequency	Percentage
Consult doctor	27	36
Self Medication	22	29.3
Ask suggestion	22	29.3
Wait till symptoms subside	9	12

**Multiple responses

Table 9 indicates that: Immediate response when students fall sick. 27(36%) consult a doctor followed by 22(29.3%) does self-medication, 22(29.3%) ask suggestion and 9(12%) wait till symptoms subside.

Table 10: Indication for self-medication n=63

Indications **	Frequency	Percentage
Cold and Cough	54	85.7
Pain (head, body, tooth)	48	76.2
Fever	46	73.0
Diarrhea	30	47.6
Dysmenorrhea	29	46.0
Nausea and Vomiting	19	30.2

** Multiple Responses

Table 10 indicates that out of 63 respondents who practiced self-medication, 54(85.7%) use medication for cold and cough, 48(76.2%) for pain which included head, body and tooth. Other conditions included fever 46(73.0%), diarrhea 30(47.6%), dysmenorrhea 29 (46.0%) and nausea and vomiting 19 (30.2%).

Table 11: Drugs used for self-medication n=63

Drugs used for self-medication**	Frequency	Percentage
Analgesics	47	75.8
Anta-acids	33	53.2
Antipyretics	29	46.8
Antispasmodic	29	46.8
Antibiotics	25	40.3
Vitamins	23	37.1
Anti-allergies	22	35.5
Herbal	19	30.6

** Multiple responses

Drugs or drug groups commonly used for self-medication among 63 respondents is shown in table no. 11. The most common drugs used are analgesics 47(75.8%), anta-acids 33(53.2%) antipyretics and antispasmodic 29(46.8%) followed by antibiotics 25(40.3%), vitamins 23 (37.1%), anti-allergies 22(35.5%) and herbal 19(30.6%).

Table 12: Reasons in favor of self-medication n=63

Reason in favor of self-medication **	Frequency	Percentage
Minor illness	50	79.4
Prior experience	39	61.9
Emergency use	32	50.8
Quick relief	20	31.7
Lack of time to consult doctor	20	31.7
Cost effectiveness	14	22.2

** Multiple responses

Table no 12 shows that among the reasons given for self-medication. Majority 50(79.4%) respondents felt that they had minor illness of treating a similar illness followed by prior experience 39(61.9%), for emergency use 32 (50.8%), for quick relief 20 (31.7%) and because of lack of time to consult doctor 20 (31.7%).14 (22.2%) respondents reported that cost effectiveness was their minor reason in favor of self-medication.

Table 13: Reason against Self-medication n=12

Reason Against Self-medication **	Frequency	Percent
Risk of adverse drug reaction	6	50.0
Risk of using wrong diagnosis	6	50.0
Risk of missing actual diagnosis	5	33.3
Risk of drug dependence	4	25.0

** Multiple responses

Table 13 indicate that reason against self-medication among 12 respondents who did not practice self-medication in one year period.6 (50%) respondent were afraid of adverse drug reaction.6 (50%), 5(33.3%) and 4(25%) are afraid of risk of using wrong diagnosis, missing actual diagnosis and drug dependence respectively.

Table 14: Medication Usage Pattern n=63

Medications Usage Pattern **	Frequency	Percentage
Practice self-medication for yourself	33	52.4
Practice self-medication for both	27	42.9
Practice self-medication for someone else	6	9.5
Practice self-medication for family	3	4.8

** Multiple responses

Table no.14 shows that medication usage pattern. Out of 63 respondents 33(52.4%) use self-medication for themselves. 27(42.9%) practice self-medication for themselves and family member as well and 6(9.5%) use for someone else (friends, neighbors) and 3(4.8%) practiced self-medication for family member only.

Table 15: Respondents view towards self-medication n=63

Statements	Responses	
	Yes	No
Do you follow doctor's prescription?	56 (92%)	7 (8%)
Do you discontinue the prescribed medicines by yourself when symptoms are not relieved?	29 (38.7%)	46 (61.3%)
Do you reuse the prescription when experienced with similar symptoms?	26 (34.7%)	49 (65.3%)
Do you increase the drug dose on yourself when symptoms are not relieved?	6 (8%)	69 (92%)
Do you experience adverse reaction during self-medication?	21 (28%)	54 (72%)
Are you habitual to any drug?	9 (12%)	66 (88%)
Do you give your prescription to someone who is having similar symptoms as yours before?	17 (22.7%)	58 (77.3%)

Do you combine herbal medicine and western medicine?	11 (14.7%)	64 (85.3%)
Do you judge yourself in deciding how much of the doctor's advice to follow?	38 (48%)	39 (52%)

Above table shows among 63 respondents, 92% follows doctor's prescription, 61.3% do not discontinue the prescribed medicines by themselves when symptoms are not relieved. The respondents who do not reuse the prescription are 65.3% and who do not increase the drug dose when symptoms are not relieved are 92%. 72% do not experience adverse reaction during self-medication and 88% were not habitual to some drug. The respondents who do not give their prescription to other who have similar symptoms are 77.3%, 85.3% do not combine herbal medicine and western medicine and 38(48%) judge themselves in deciding how much of the doctor's advice to follow.

IV. Discussion

Concerning the demographic characteristics, the respondents were of age (20.76±2.33) years and were medical first year students. Regarding the prevalence of self-medication, 84% had practiced self-medication, of which out of total 21 male, prevalence rate for male was 95.23% and out of total 54 female, the prevalence rate was 79.6%. This is similar to the finding of Ehigiator O [11] which showed 92% prevalence rate (94% male and 91% female). The most important reason for higher trend of self-medication might be the easy availability of all categories of medicines without prescription.

Concerning the source of information about self-medication, 60.31% respondent use pharmacist as a source and 46.03% respondent follow textbook. The finding is in line of a previous study conducted among medical students by Wajantri, Angadi and Masali [12] which revealed 49.68% use pharmacist and 8.91% use textbooks. It may suggest that medical students rely more on objective sources of information. Regarding the knowledge about hazards due to increase drug dose, 4% respondents were unaware about it and 8% respondents were unaware about change of timing. It means majority of the respondents were aware about it. In contrast to this, the study conducted by Wajantri, Angadi and Masali [12] revealed 87.26 % unaware about drug dose and timing.

Concerning the level of knowledge regarding self-medication 52% respondent had good knowledge where as 48% had poor knowledge. This study is congruence with the study done by James, Handu, Khaja and Otoom [12] which shows majority of student has fairly good knowledge. This could also mean that medical students have knowledge about side effects, advantages and disadvantages which they have learned from pharmacology course. Regarding the level of attitude towards self-medication 50.7% of the respondent had a positive attitude towards self-medication. This finding of the study is supported by James, Handu, Khaja and Otoom [12] done to assess "Evaluations of Knowledge, Attitude and Practice of self-medication among first year medical students" which revealed that majority 76.9% of respondent had a positive attitude towards self-medication and favored self-medication saying that it was acceptable.

Majority (85.7%) respondent use medication for cold and cough, 76.2% use for pain and 73% use for fever. This study is supported by the findings of Pandya R.N. [13] where 52.5% respondent use medicines for cold/cough, 54% respondent for pain and 48.72% for fever. Regarding indications for self-medication; diarrhea, dysmenorrhea and vomiting were 47.6%, 46% and 32% respectively. This is in contrast to the study conducted by Pandya R.N. [13] where 11.53% use for diarrhea, 12.82% use for dysmenorrhea and 7.69% use for vomiting. The discrepancy in the finding might be due to higher number of females.

With respect to drugs that were commonly used, more than three fourth of the students use analgesics (75.8%), antipyretics (46.8%), antibiotics (40.3%) and anti-allergies (35.5%). This is similar to the study conducted by James, Handu, Khaja and Otoom [6] which shows analgesics (81.3%), antipyretics (43%), antibiotics (6%) and antihistamine (13%). The use of antibiotics is not as common as analgesic and antipyretics , it might be due to the knowledge regarding antibiotics resistance and its adverse effect.

Concerning reasons of self-medication, major reason was minor illness (79.4%), and the diseases of prior experience (61.9%). This may be attributed to the ignorance and lack of knowledge regarding the progression of diseases. The fact that those with a mild illness practiced self-medication has got serious implications as many diseases may initially appear to be mild but misdiagnosis and wrong treatment may invite serious health hazards. This finding is in congruence with the findings of the study conducted by Banerjee and Bhadury [14] done to assess self-medication practice among undergraduate medical students in a tertiary care medical college, West Bengal found that mild nature of illness was the most common one (47.19%).

Regarding reason against self-medication, 50% respondents were afraid of self-medicating because of risk of adverse drug reaction and 50% respondent were afraid due to risk of using wrong diagnosis. Similar study done by James, Handu, Khaja and Otoom [6] found that 32.8% were afraid of risk of adverse drug reaction and 31.3% were afraid of risk of using wrong drugs. This may be due to the knowledge about adverse drug reaction among the medical students.

The results concerning the reuse of prescription, 34.7% used the same prescription when experienced with similar symptoms. Likewise, regarding adverse reaction 28% experienced it during self-medication. The similar finding is found in the study Ehigiator O [11] 59.2% reuse old prescription and 16.9% suffered from adverse drug reaction.

V. Conclusion And Recommendation

This descriptive study has found that self-medication is very common among medical students, facilitated by the easy availability of drugs and information from textbook. Since inappropriate self-medication has the potential to cause serious harm, not only to students themselves but also to those whom they suggest medication. The respondent shows good knowledge towards self-medication and positive attitude towards self-medication favoring it is acceptable. 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 sex of respondents. 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 in Nepalese context. Similar type of study can be conducted in different setting in large scale. Self-medication can also be included in course by emphasizing the potential risk of self-medication. Restriction of sale of drugs with potentially harmful effects can be implemented effectively with monitoring systems between the significant stake holders. Steps can also be taken to the pharmacists not to provide OTC drugs. 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.

Acknowledgement

The author expresses heartfelt gratitude to Prof. Milan Lopchan and Dr. Bidur Osti, Principal, Chitwan Medical College Teaching Hospital for permitting us to do the study.

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