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Exploring Paramedical Student's Knowledge, Attitudes, and Practices Regarding Self-Medication: A Cross-Sectional Study in Kathmandu Valley

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ABSTRACT

Introduction: *Self-medication is common among paramedical students. For safe use of self-medication, students are expected to have proper knowledge, attitude, and practice towards self-medication and subsequent adverse drug reaction.*

Objective: *The aim of the study was to assess Knowledge, Attitude, and Practice toward self-medication among paramedical students in Kathmandu valley.*

Methods: *A cross-sectional study was conducted. A total of 403 paramedical students was enrolled and subjected for interview using pre-validated Knowledge, Attitude and Practice questionnaire on responsible self-medication and analyzed using Statistical Package for Social Sciences (SPSS) version 23. Chi square analysis was conducted and correlation was used to determine the association between Knowledge Attitude and Practice of self-medication. A p value of 0.05 was used to declare statistical significance.*

Results: *Self-medication is widely practiced among medical and pharmacy students. About 135(33.5%) have good knowledge, 167(41.4%) have moderate knowledge, and 101(25.1%) have poor knowledge. Maximum 362(89.8%) have a positive attitude towards responsible self-medication more than half of all the respondents 242(60%) have irrational self-medication practice.*

Conclusion: *Strategies should be implemented to improve some of the malpractice by paramedical students. They should take responsibility and be role models to others towards rational use of drug and Steps can also be taken by the paramedical students not to provide OTC drugs irrationally.*

Key Word: *Attitude, Knowledge, Para-Medical, Practice and Self-Medication.*

INTRODUCTION

Self-medication is becoming an important component of health care in both developed and developing countries. Unlike in the developed countries, illegal providers of drugs (seller in market, non-licensed provider of injection etc) are common in developing countries along with some practitioners for further source of irrational and potentially dangerous drug use [1]. The prevalence rates of self-medication are high all over the world; up to 68% in European countries, while much higher in the developing countries with rates going as high as 92% in

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the adolescents of Kuwait. Our neighboring countries have prevalence rates of 31% in India and 59% in Nepal. It is also alarming that the prevalence rates are on the rise despite efforts to limit this problem. Various previous studies have shown that self-medication practices are more common[2].The concept of self- medication which encourages a person to look after minor ailments with simple and effective remedies has been adopted worldwide. Unsupervised self- medication places patient at risk for medication misuse. Patient self-medication may also bring out dangerous drug- drug and drug- disease interactions. Hence, public knowledge, attitudes and practice regarding the use of medicine influence the decision to seek health care, the use of medicines and finally the success of treatment[3]. The World Health Organization (WHO) defines self-medications "the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continuous use of a prescribed drug for chronic or recurrent diseases or symptoms".

OTC (Over The Counter) drugs can be used as a self-medications and shows their efficacy and safety but their improper use due to lack of knowledge of correct dose, side effects, and interactions could have serious complications, especially in extremes of ages (children and old age) and special physiological conditions like pregnancy. Over the counter (OTC) medications are drugs which have been found to be safe and appropriate for use without the supervision of a health care professional such as a physician, and they can be purchased by consumers without a prescription[4]. Self-medication assumes a special significance among pharmacy and medical students as they are the future health care practitioners and have a potential role in counseling their patients about the advantages and disadvantages of self-medication. They also differ from the general population because they are well-exposed to the knowledge about diseases and drugs[4]. The medication treatment process commences with a doctor's prescription, followed by the pharmacist's check-up and the medication is finally administered to the patient by medical staff. Medication errors can occur at any of these three stages[5].

The academic curriculum of pharmacy students will fetch a thorough understanding of drugs and their effects, but there was a lack of understanding of disease diagnosis. This knowledge regarding medicines uses among pharmacy student community will drive higher self-medication practices, comparing to other medical and nonmedical students. Individuals, especially youth, are really influenced by the technology, and they can get information about any drug and as well as they can buy drugs through websites, these results in irrational self-medication practice[6]. Without knowing the correct dose of drug, mechanism of action, adverse drug reaction, food- drug interaction, may bring another complication, over dose may produce damage to organs where as low dose may not bring any cure to disease and can lead to use of other drugs for another diseases. Self-medication is common among the paramedical student as they study about the mechanism of action, indication, ADR in their course of study. Wrong self-medication leads to increase in the risk of medical conditions, drug-drug interaction, food-drug interaction that increase the disease condition. Due to increasing self–medication among paramedical students that lead to potential of delay in treating a serious medical condition, masking of symptom of the serious condition through the use of non-prescription products, increase poly-pharmacy and interaction, increase in resistance of the drug, like antibiotics, NSAID's etc. In this situation students are aware about the proper use of medication and can recommend to the needy people regarding their level of knowledge which helps to prevent unwanted effects and can prevent the development of mild illnesses, thereby reducing health care financial burden by obviating the need for referring to health centers.

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RESEARCH METHODOLOGY

Research Design:

This research is non-experimental observational study design, where Knowledge, Attitude and Practice toward self- medication among paramedical students were assessed.

Research Type

It is quantitative type of research study.

Study Population

A total of 403 paramedical students was enrolled and subjected for interview using pre-validated Knowledge, Attitude and Practice questionnaire on self-medication.

METHODOLOGY

Study design and participants

This is a cross-sectional study, which was conducted in paramedical students in Kathmandu Valley. The study was carried over a period of 3 months and Students of different college were included in this study.

Sample Size

Sample size to be calculated by using given formula;

$n = Z^2pq/d^2$

Where,

n = Sample size

Z = Confidence level at 95% (standard value of 1.96)

P = Estimated probability of survey d = Margin of error

Calculation,

$n = (1.96)^2*0.5*0.5/ (0.05)^2$ n =384.16

Non-response rate = 5% i.e.19.208 Total sample size (n) = 403

Data Processing, Analysis and Interpretation

The study was proceeding in three phase-data entry program development, data entry and data clearing. To ensure the accuracy and quality of data entry, 5 percent of data was double entered by data entry personnel and then both sets of data was compared to identify inconsistencies. Data processing steps taken concurrently with the finalization of the checklist and commencement of the study. The data was revised, codes, verified and statistically analyzed using the Statistical Package for Social Science (SPSS).

RESULT AND DATA INTERPRETATION

Socio-demographic Characteristics

Table No. 1 Socio-demographic characteristics

Variable		Frequency	Percent (%)
Age Groups	16-20	342	84.8%
	21-25	51	12.7%

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	26-45	10	2.3%
Gender	Male	125	31%
	Female	278	69%
Family Structure	With family	336	83.4%
	Live alone	67	16.6%

The table no. 1. shows that out of 403 valid respondents 121(25.8%) are 18 yrs, 104(25.8%) are 19 years,21(5.2%)are 20 years,10(2.5%) are 21, 11(2.7%) are 22 years, 16(4.0%) are 23 years, 2 (0.5%) are 24 years, 12(3%) are 25 years, 1(0.2%) are 26 years,7(1.7%) is 30 years, 1(0.2%) is 37 years and 1(0.2%) is 45 years, 278(69%) are female and 125(31%) are male and 336(83.4%) live with family and 67(16.6%) live alone.

Knowledge toward self- medication

Table No. 2. Distribution of "Yes" and "No" about knowledge of self-medication among paramedical students in Kathmandu Valley.

S.N.	Knowledge Question	Yes		No	
		Frequency	%	Frequency	%
1	Do you have any knowledge about self-medication?	390	96.8%	13	3.2%
2	Basic knowledge about drug action is required for self-medication?	378	93.8%	25	6.2%
3	Is self-medication safe?	89	22.1%	314	77.9%
4	Do you have knowledge about adverse drug reaction?	274	68.0%	129	32.0%
5	Do you have knowledge about hazards due to increase drug dose?	305	75.7%	98	24.3%
6	Do you have knowledge about completing dose of drug?	292	72.5%	111	27.5%
7	Does medicine with food, drink, or alcohol can interfere with the effect of medicine?	368	91.3%	35	8.7%
8	Will antibiotic overuse can result in antibiotic resistance?	382	94.8%	21	5.4%

The above table no.2. shows that out of 403 respondents, 390(96.8%) have knowledge about self-medication whereas 13(3.2%) did not know about self-medication, 378(93.8%) have knowledge about drug action of self-medication whereas 25(6.2%) did not have knowledge about drug action required for self-medication , 89(22.1%) think self-medication is safe whereas 314(77.9%) think self-medication is not safe, 274(68%) have knowledge about adverse drug reaction whereas 129(32%) are unknown about adverse drug reaction, 89(22.1%) think self-medication is safe whereas 314(77.9%) think self-medication is not safe. The above table shows that out of 403 respondents, 274(68%) have knowledge about adverse

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drug reaction whereas 129(32%) are unknown about adverse drug reaction, 305(75.7%) have knowledge about hazards due to increase drug dose and 98(24.3%) did not have knowledge about hazards due to increase drug dose.

Out of 403 respondents, 292(72.5%) have knowledge about completing dose of drug and 111(27.5%) did not have knowledge about completing dose of drug, 368(91.3**%)** respondents considered food, drink, or alcohol can interfere with the effect of medicine whereas 35(8.7%) respondents did not, 382(94.8**%)** respondent's antibiotic resistance whereas 21(5.4%) respondents did not.

Table No. 3. Why do you prefer self-medication?

S.N.	Options	Frequency	Percent (%)
1.	Because it gives fast relief	142	35.2%
2.	Because I have no time to visit physician	28	6.9%
3.	Because easily available of drug from pharmacy	170	42.2%
4.	Because seeking physician is expensive than self-medication	59	14.6%
5.	Missing	4	1%

Above table no. 3. Shows that out of 403 respondents, 399 respondents respond the question. Out of 399 respondents, 142(35.2%) prefer self-medication because of its fast relief and 28(6.9%) prefer because of its busy schedule and 170(42.2%) prefer because of easy available of drug from pharmacy and 59(14.6%) prefer because seeking physician is expensive than self-medication.

Table No. 4. Self-medication done for common health problems like.

S.No.	Options	Frequency	Percent (%)
1.	Mild pain or headache	123	30.5%
2.	GI problem	27	6.7%
3.	Eye or ear problem	16	4%
4.	Vomiting	24	6%
5.	Fever	126	31.3%
6.	Menstrual problem	80	19.9%
7.	If other.....	7	1.7%

The table no. 4. shows that highest percentage of people 126(31.3%) use self- medication for fever and lowest percentage of people 16(4.0%) use self-medication for eye and ear problem, 123(30.5%) use self-medication for mild pain and headache and 27(6.7%) for GI problem, 80(19.9%) for Menstrual Problem and 24(6.0%) for vomiting.

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Table No. 5. Knowledge about drugs used for Self-medication?

S.N.	Drugs	Frequency	Percent (%)
1.	NSAID's	158	39.2%
2.	Antibiotics	140	34.7%
3.	Antihistamines	29	7.2%
4.	Steroids	22	5.5%
5.	Antispasmodics	40	9.9%
6.	If other	14	3.5%

The table no. 5. Shows that out of 403 respondents, 158(39.2%) use NSAID's, 140(34.7%) use antibiotics, 29(7.2%) use Antihistamines, 22(5.5%) use Steroids, 40(9.9%) use Antispasmodics and 14(3.5%) use other drugs for self-medication.

Table No. 6. While taking self-medication if any other side effect is seen then what will you does further?

S.N.	Options	Frequency	Percent (%)
1.	Discontinue medication	155	38.5%
2.	Consult doctor	248	61.5%

The table no. 6. Shows that out of 403 respondents, 248(61.5%) respondents consult doctor and 155(38.5%) discontinue medication by themselves if any other side effect is seen.

Attitude about Self-medication

Table No. 7. Attitude towards self-medication among paramedical students in Kathmandu Valley.

S.N.	Statements	Strongly Agree Frequency and (%)	Agree Frequency and (%)	Neither agree nor disagree Frequency and (%)	Disagree Frequency and (%)	Strongly Disagrees Frequency and (%)
1	Medical students have good ability to diagnose the symptoms.	92 22.8%	237 58.8%	64 15.9%	3 0.7%	7 1.7%
2	Self-medication would be harmful if they are taken without proper knowledge of drug and disease.	261 64.8%	105 26.1%	26 6.5%	4 1%	7 1.7%

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3	Self-medication may lead to use of wrong drug.	66 16.4%	284 62.8%	84 20.8%	0 0%	0 0%
4	Self-medication is not suitable for prolonged period.	138 34.2%	194 48.1%	23 5.7%	44 10.9%	4 1%
5	Proper monitoring of symptoms and side effects are essential.	173 42.9%	212 52.6%	17 4.2%	1 0.2%	0 0%
6	Self-medication provides quick relief.	91 22.6%	87 21.6%	212 52.6%	13 3.2%	0 0%
7	We can advise self-medication to others.	7 1.7%	66 16.4%	122 30.3%	187 46.4%	21 5.2%
8	Self-medication is economical.	32 7.9%	157 39%	83 20.6%	131 32.5%	0 0%
9	Self-medication under expert may lead to better result.	148 36.7%	147 36.5%	72 17.9%	36 8.9%	0 0%
10	Self-prescribed drug is not safe during pregnancy.	233 57.8%	144 35.7%	14 3.5%	7 1.7%	5 1.2%

The table no. 7. Represents 92(22.8%) respondent strongly agree for medical students have good ability to diagnose the symptoms, 237(58.8%) agree, 64(15.9%) neither agree nor disagree, 3(0.7%) disagree and 7(1.7%) strongly disagree. 261(64.8%) respondents strongly agree that self-medication would be harmful if they are taken without proper knowledge of drug and disease, 105(26.1%) agree, 26(6.5%) Neither agree nor disagree, 4(1%) disagree and 7(1.7%) strongly disagree. 66(16.4%) respondents strongly agree that self- medication may lead to use of wrong drug, 253(62.8%) agree, 84(20.8%) neither agree nor disagree. out of 403 respondents, 138(34.2%) respondents strongly agree that self-medication is not suitable for prolonged period whereas 194(48.1%) agree, 23(5.7%) neither agree nor disagree, 44(10.9%) disagree and 4(1%) strongly disagree. 173(42.9%) respondents strongly agree that proper monitoring of symptoms and side effects is essential whereas 212(52.6%) agree, 17(4.2%) neither agree nor disagree 1(0.2%) disagree, 91(22.6%) respondents strongly agree that self-medication provides quick relief whereas 87(21.6%) agree, 212(52.6%) neither agree nor disagree, 212(52.6%) disagree and 13(3.2%) strongly disagree. 7(1.7%) respondents strongly agree that self-medication can be advice to others whereas 66(16.4%) agree, 122(30.3%) neither agree nor disagree, 187(46.4%) disagree and 21(5.2%) strongly disagree.157(39%) respondent agree that self-medication is economical whereas 131(32.5%) disagree, 83(20.6%) neither agree nor disagree, and 32(7.9%) strongly agree that self-medication is expensive. 148(36.7%) respondents strongly agree that self-medication under

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expert may lead to better result whereas 147(36.5%) agree, 72(17.9%) neither agree nor disagree, 36(8.9%) disagree. 233(57.8%) respondents strongly agree and 144(35.7%) agree that self-prescribed drug is not safe during pregnancy whereas, 14(3.5%) neither agree nor disagree, 5(1.2%) disagree and 21(5.2%) strongly disagree that self-prescribed drug is not safe during pregnancy.

Practice about Self-medication

Table No. 8. Practice towards self-medication among paramedical student in Kathmandu Valley

S.N.	Practice Question	Yes		No	
		Frequency	(%)	Frequency	(%)
1	Have you given your prescription to someone who has similar symptoms?	172	42.7%	231	57.3%
2	Do you take self-medication without reading leaflet/package insert?	47	11.7%	356	88.3%
3	Do you Check expiry date before using drugs?	397	98.5%	6	1.5%
4	Do you take drugs for self-medication for long without any medical advice?	0	0%	403	100%
5	In all types of illness do you prefer self-medication?	6	1.5%	397	98.5%

The table no. 8. Shows out of 403 respondent, 231 (57.3%) Have given their prescription to someone who has similar symptoms whereas 172 (42.7%) have not given their prescription to someone who has similar symptoms., 356 (88.3%) take self-medication reading leaflet/package insert whereas 47(11.7%) does not read leaflet/package insert, 397(98.5%) respondent check expiry date whereas 6(1.5%) use self-medicated drugs without checking expiry date, entire respondent does not take drugs for self-medication for long without any medical advice. 397(98.5%) respondents does not prefer self-medication for all type of illness whereas 6(1.5%) prefer, self-medication for all type of illness.

Table 9. Adequacy of Knowledge, Attitude, and Practice toward Responsible Self-medication among Paramedical Student n (403)

Variable	Frequency	Percent (%)
Knowledge		
Good Knowledge	135	33.5%
Moderate Knowledge	167	41.4%
Poor knowledge	101	25.1%
Attitude		
Positive Attitude	362	89.8%

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Negative Attitude	41	10.2%
Practice		
Responsible SMP	161	40.0%
Irrational SMP	242	60.0%

From the above table no. 9. all respondents, 135(33.5%) have good knowledge, 167(41.4%) have moderate knowledge, and 101(25.1%) have poor knowledge. Maximum 362(89.8%) have a positive attitude towards responsible self-medication more than half of all the respondents 242(60%) have irrational self-medication practice.

Cross Tabulation and Correlation between Knowledge and Attitude

Table 10: Do you have any knowledge about self-medication? Self- medication may lead to use of wrong drug.

	Self-medication may lead to use of wrong drug			
	Strongly agree	**Agree**	**Neither agree nor disagree**	**Total % of total**
Do you have any knowledge about self- medication? No count % of total	66 16.37%	253 62.78%	0 0%	13 3.22%
Yes count % of total	66 16.37%	240 59.55%	84 20.84%	390 96.77%
Total count % of total	0 0%	13 3.22%	84 20.84%	403 100%

From above table no. 10. 59.55% had knowledge about self- medication and agree on Self-medication may lead to use of wrong drug .62.78% do not have knowledge on self-medication and agree on Self-medication may lead to use of wrong drug.

Table No. 11. Chi-Square and Correlation table

	t-Value	**Significance (P-value)**
Pearson Chi-Square	7.964	0.019
Pearson Correlation	0.013	0.789

The calculate t value of Knowledge and Attitude is 7.964. The p value is 0.019 which is less than 0.05; there is association between knowledge and attitude about self- medication. Pearson correlation is 0.78; indicate strong correlation between Knowledge and Attitude about self- medication.

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Cross Tabulation and Correlation between Knowledge and Practice

Table No. 12: Is self-medication safe? Have you given your prescription to someone who has similar symptoms?

		Have you given your prescription to someone who has similar symptoms?		
		No	**Yes**	**Total % of total**
Is self-medication safe?	No count % of total	184 45.66%	130 32.26%	314 77.91%
	Yes count % of total	47 11.66%	42 10.42%	89 22.09%
	Total count % of total	231 57.32%	172 42.68%	403 100%

From table no. 12. 11.66% respondent consider self-medication as safe and have not given a prescription to someone having similar symptoms where as 10.42% have given their prescription to people having similar symptoms considering self – medication safe. 45.66% do not consider self- medication safe so do not give prescription to someone having similar symptoms. Although 32.26% do not consider self- medication as save, give prescription to someone having similar symptoms.

Table No. 13. Chi-Square and Correlation table

	t-Value	**Significance (P-value)**
Pearson Chi-Square	0.950	0.330
Pearson Correlation	0.049	0.331

The calculated t value is 0.950. The p value is 0.330 which is greater than the level of significance 0.05 which shows no association between knowledge and attitude. In Pearson correlation p-value is 0.331 which indicates weak correlation between them.

DISCUSSION

This study shows that, 390(96.8%) have knowledge about self-medication whereas 13(3.2%) did not know about self-medication. Similar finding was reported by a study conducted by Susheela, *et al.*: KAP toward responsible self-medication among pharmacy students 332(82.38) have knowledge about self-medication. In this study 378(93.8%) have knowledge about drug action of self-medication whereas 25(6.2%) did not have knowledge about drug actions. Similar finding was reported by a study conducted by Susheela, *et al.*: KAP toward responsible self-medication among pharmacy students 325(80.6%) have knowledge about drug action of self-medication, where 89(22.1%) think self-medication is safe whereas 314(77.9%) think self- medication is not safe[7].

Most of the student prefer self-medication because of 170(42.2%) easy available of drug from pharmacy and 28(6.9%) prefer because they didn't have time to visit physicians. self-medication done for common health problem like majority is fever 126(31.3%), mild pain or headache 123(30.5) %, GI problem 27(6.0%) and menstrual problem 80(19.9%). This study is contrast to study conducted by Abebe Dilie, where 60(41%) identified pain (head, body,

tooth), 17(11.6%) fever and 10(6.8%) dysmenorrhea[8].

Most Commonly used drug for self-medication are NSAID's 158(39.2%), antibiotics 140(34.7%), Antihistamines 29(7.2%), Steroids 22(5.5%), Antispasmodics 40(9.9%) and 14(3.5%) use other drugs for self-medication. this is high in the study conducted by Susheela, *et al*.: KAP toward responsible self-medication among pharmacy students[7]. NSAIDs 224 (55.6%), Antibiotics 231(57.3%), Antihistamines 212(52.6%), Steroids 12(2.9%, Antispasmodics 185(45.9).

Most of the student 305(75.7%) have good knowledge about hazards due to increase in drug dose and 98(24.3%) did not have knowledge about hazards due to increase drug dose. More than 70 % have knowledge about completing dose of drug while 111(27.5%) did not have knowledge about completing dose of drug. This practice brings great risk such as antibiotic resistance. Majorly 237(58.8%) agree that medical students have good ability to diagnose the symptoms, whereas, 92(22.8%) respondents strongly agree, 64(15.9%) Neither agree nor disagree and 7(1.7%) strongly disagree. Where similar study done by Abebe Dilie found that 133(53.2%) agree that medical students have good ability to diagnose the symptoms, whereas, 85(34.0%) respondents strongly agree, 64 and 3(1.2%) strongly disagree [8].

Out of 403 respondents, 91(22.6%) respondents strongly agree that Self-medication provides quick relief whereas 212(52.6%) neither agree nor disagree majority of respondent is on neither agree nor disagree this shows that they are not sure that self- medication may provide quick relief and out of 403 respondents, 157(39%) respondents agree that Self-medication is economical whereas 83(20.6%) neither agree nor disagree. Where 231(57.3%) respondents have not given their prescription to someone who has similar symptoms whereas 172 (42.7%) have given their prescription to someone who has similar symptoms. More than (90%) respondent does not prefer self-medication for all type of illness because more than (60%) have knowledge about ADR. this similar finding concluded by Mehta R.J., Sharma.s. Knowledge, Attitude and Practice of Self-Medication among Medical Students that (50%) respondent have knowledge about ADR and (77.3%) have not given their prescription to other as they are aware that wrong diagnosis may take place[9].

Concerning the level of knowledge regarding self-medication among paramedical students, 135(33.5%) have good knowledge, 167(41.4%) have moderate knowledge, and 101(25.1%) have poor knowledge. Maximum 362(89.8%) have a positive attitude towards responsible self-medication more than half of all the respondents 242(60%) have irrational self-medication practice. This finding of the study is supported by Susheela, et al.: KAP toward responsible self-medication among pharmacy students which shows that majority of student 150(37.2%) have good knowledge, 38(9.4%) moderate knowledge, and 215(53.3%) poor knowledge. Maximum 397(98.5%) have a positive attitude toward responsible self-medication. More than 233(57.8%) respondents have irrational self-medication practice. This could also mean that medical students have knowledge about side effects, ADR and indications which they have learned from pharmacology course[7].

In the cross tabulation between knowledge and attitude about self- medication 59.55% had knowledge about self- medication and agree on Self-medication may lead to use of wrong drug. 62.78% do not have knowledge on self- medication and agree on Self- medication may lead to use of wrong drug.

The calculate t-value of Knowledge and Attitude is 7.964. The p-value is 0.019 which is less

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than 0.05; there is association between knowledge and attitude about self- medication. Pearson correlation is 0.78; indicate strong correlation between Knowledge and attitude about self- medication.

In the cross tabulation between Knowledge and Practice about self- medication 11.66% respondent consider self-medication as safe and have not given a prescription to someone having similar symptoms where as 10.42% have given their prescription to people having similar symptoms considering self – medication safe. 45.66% do not consider self-medication safe so do not give prescription to someone having similar symptoms. Although 32.26% do not consider self- medication as save, give prescription to someone having similar symptoms.

The calculated t-value is 0.950. The p-value is 0.330 which is greater than the level of significance 0.05 which shows no association between knowledge and attitude. In Pearson correlation p-value is 0.331 which indicates weak correlation between them.

CONCLUSION

The study revealed an increasing trend in self-medication among paramedical students. Respondent of age Eighteen years and Nineteen years old practice self- medication. This study has found that self-medication is very common among medical students, facilitated by the easy availability of drugs and information from textbook. Overall respondents have moderate knowledge about self-medication; have a positive attitude towards responsible self-medication and more than half of all the respondents have irrational self-medication practice. It was noted that most of the participants were youth that the health care students were knowledgeable and have positive attitude as they are engaged in self-medication practice. Significant problems and malpractice were identified such as use of drug without checking expiry date, sharing prescription to others etc. Raising awareness and further improve the practice of students about self-medications in order to build up new generations combating unregulated self-medication is very important.

Strategies should be implemented to improve some of the malpractice by paramedical students. They should take responsibility and be role models to others towards rational use of drug and Steps can also be taken by the paramedical students not to provide OTC drugs irrationally.

Limitation of Study

- Since the study was a cross-sectional study, the result of the study are dependent on the response given by the respondents thus there may be respondent bias as the respondent may give false answer to some of question.
- This study area was selected randomly; hence the result of the study does not cover the exact pictures of the entire paramedical student.
- This study will have been more generalized if the paramedical students from the whole years of study were included.

Future Recommendation

- Strategies should be implemented to improve some of the malpractice by paramedical students. They should take responsibility and be role models to others towards rational use of drug. Health professional have to improve student’s awareness about consumption of prescription-only drugs and self – medication with proper knowledge.

- This study will be helpful for new researcher or student for the further research on the similar topic having the variety of criteria. The study will be helpful to provide base line data about KAP 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.

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