

Data on self-medication among healthcare students at Najran University, KSA

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Received May 1, 2021; Revised May 29, 2021; Accepted May 29, 2021, Published May 31, 2021

DOI: 10.6026/97320630017599

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Abstract:

The prevalence of self-medication (SM) has increased in health professionals due to awareness of disease and symptoms. Incorrect use of medication caused harmful effects. To assess the knowledge, attitude and practice of health professionals, this survey was conducted. A cross-sectional study was carried out among health professionals of different specialities. Knowledge, attitude and practice-based questions were asked through an electronically distributed questionnaire. Data were statistically tested using the Chi-square test with SPSS. Most of the health professionals were aware with the term of self-medication; however the knowledge about related questions was not satisfactory. Almost half of the participants practiced self-medication. The prevalence of self-medication among participants was high. They need to be trained and educate about the incorrect use of self-medication

Background:

The selection and use of medical products and medicine including traditional medicine and herbal medicines by individuals to treat

recognized symptoms or illness or continued use of prescribed medicine for chronic symptoms or diseases are termed as self-medication. [1] According to WHO, with improving the socio-

economic and education status of individuals in developing countries, it plays an important role in the health care system. [2] In South East Asia self-medication has become very common due to high population density, lack of rules and regulations and inadequate medical facilities. [3] Self-medication can be useful for the individuals who do not have severe illness or do not seek medical attention, if appropriately practices e.g., treatment of headache by the students with paracetamol (over-the-counter product), but its inappropriate practice can be harmful because it increases the risk of drug abuse/misuse. [4] It doesn't only harm the health of students but also might be a threat for their profession in future. [5] They can affect the care quality because they may advice relatives and patients to self-medication practice. [6] Previous studies have revealed that the use of self-medication has increased in health science students worldwide. The use of self-medication is reported in 75.2% medical students from the King Abdulaziz University, KSA [7] and 79.9% students practiced self-medication in the Serbia University of Belgrade. [8] There are many reasons for the prevalence of self-medication i.e., to save money, previous drug experience, long waiting time at doctor clinics and mild health. [9] Headache is the most common indication that drives the students to practice self-medication and analgesic consumption. [10] Antibiotics, decongestant, analgesics, antipyretic, anti-acid and cough suppressants were the most commonly used drugs. [11] Students of health sciences have more knowledge about illness and medicines, so they are more prone to use analgesics and practice self-medication. So, they might be at risk of overuse of analgesics. [8] There is a need to address this problem in nursing students, as they would be the healthcare providers in future. [12] It is imperative to promote awareness of the hazards of self-medication to specialists. The basic objective of this survey is to assess the knowledge and attitude of participants to self-medication and their rate of practicing it.

Material and Methods:

Study design and tools:

A questionnaire-based cross-sectional study was conducted in Saudi Arabia to assess the knowledge, attitude and practice of self-medication among different healthcare providers i.e. Doctors, nurses, pharmacists and physiotherapists. Professionals who were willing to participate in the survey were included. Questions were written in the English language and had three sections (i) Knowledge related to self-medication (ii) attitude towards self-medication and (iii) it had questions about the practice. Clinical and demographic details were also asked.

Data collection:

Total 440 professionals participated in this survey. After taking the consent, the questionnaire was electronically distributed and clear objective of the study was explained to them. Data was collected and compiled for further statistical analysis.

Statistical analysis:

Data were analyzed statistically by using SPSS and significance of the relationship between speciality and different questions were measured with Chi-square test by taking $p < 0.05$.

Table 1: Demographic details of participants

	n	Percentage
Gender		
Female	113	25.7
Male	317	74.3
Total	440	100.0
Age		
15-19 years	71	16.1
20-24 years	246	55.9
25 years and above	123	28.0
Total	440	100.0
Specialty		
Medical	90	20.5
Dental	128	29.1
Pharmacy	74	16.8
Nursing	101	23.0
Physiotherapy	47	10.7
Total	440	100.0
Academic level		
3 rd year student	161	36.6
4 th year student	159	36.1
5 th year student	120	27.3
Total	440	100.0

Results:

Demographic details:

A total of 440 professionals from different specialities participated in this study. Among them 113 (25.7%) were female and 317 (74.3%) were male. Their age was distributed, as 15-19 years were 16.1%; 20-24 years were 55.9% and 25 years and above were 28.0%. As concerned their speciality medical professionals were 90, professionals related to the dental field were 128, 74 from the pharmacy, 101 from the nursing and 47 were from the physiotherapy. 36.6%, 36.1% and 27.3% were from 3rd, 4th and 5th years students respectively (**Table 1**).

Knowledge:

Most of the participants 70 from medical, 96 from dental, 65 from the pharmacy, 53 from nursing and 30 from physiotherapy were agreed that medication should be decided by doctor's suggestion while total 126 (28.6%) used traditional healer for medication. Majority of the participants 189 (43.0%) were not aware of self-medication and 33.6% knew about it. Medical professionals had more knowledge than others. All participants selected a different source of information. The most chosen source was advice from the pharmacist. 257 (58.4%) participants chose this source, 40 (9.2%) selected advice from friends and relatives, 56 (12.7%) said that people used self-medication from their own experience and 39 (8.8%) agreed that this source is reading material and medical books. Knowledge about a medical condition which leads the use of self-medication was as follow; headache/fever for 286 (65.0%), GI problems for 57 (13.0%) and skin problems for 39 (8.8%). Most of

the participants from all field (24.1% from medical, 30.8% from dental, 21.7% from the pharmacy, 15.7% from nursing and 8.7% from the pharmacy) were agreed that headache/fever is the most common reason for which people practice self-medication. The maximum number of individual who considered nausea and vomiting as a side effect was 75 (31.1%) from medical, palpitation for 11(26.8%) from physiotherapy, 15 (31.3%) from pharmacy chose dizziness as a side effect of self-medication. 229 participants out of 440 didn't have the knowledge about an over-the-counter medication. Relationship between speciality and different questions were not significant, however, awareness about the term self-medication and OTC medicines was significant (**Table 2**).

Table 2: Respondents data distribution on the basis of their knowledge on self-medication

Response	Specialty					Total	p-value	
	Medical	Dental	Pharmacy	Nursing	Physiotherapy			
How do you decide your medication?	By Doctor's suggestion	70 22.3%	96 30.6%	65 20.7%	53 16.9%	30 9.6%	314 71.4%	0.173
	Traditional healer	20 15.9%	32 25.4%	36 28.6%	21 16.7%	17 13.5%	126 28.6%	
Do you know about self medication?	Yes	48 32.4%	40 27.0%	31 20.9%	16 10.8%	13 8.8%	148 33.6%	0.000
	No	27 4.3%	53 28.0%	55 29.1%	34 18.0%	20 10.6%	189 43.0%	
Sources of information about self-medication	Maybe	15 4.6%	35 34.0%	15 14.6%	24 23.3%	14 13.6%	103 23.4%	0.041
	Advice from pharmacist	64 24.9%	75 29.2%	53 20.6%	41 16.0%	24 9.3%	257 58.4%	
	Advice from friends and relatives	9 22.5%	12 30.0%	8 20.0%	10 25.0%	1 2.5%	40 9.1%	
	My own experience	5 8.9%	14 25.0%	13 23.2%	11 19.6%	13 23.2%	56 12.7%	
	Reading material and medical books	7 17.9%	13 33.3%	10 25.6%	5 12.8%	4 10.3%	39 8.9%	
	Others (internet and advertisement)	5 10.4%	14 29.2%	17 35.4%	7 14.6%	5 10.4%	48 10.9%	
	Headache/fever	66 23.1%	88 30.8%	62 21.7%	45 15.7%	25 8.7%	286 65.0%	
Which medical condition leads for self-medication?	Upper respiratory tract problems	9 15.5%	17 29.3%	17 29.3%	7 12.1%	8 13.8%	58 13.2%	0.439
	GI problems	10 17.5%	14 24.6%	13 22.8%	13 22.8%	7 12.3%	57 13.0%	
	Skin problems	5 12.8%	9 23.1%	9 23.1%	9 23.1%	7 17.9%	39 8.8%	
Side effects of self-medication	Nausea and vomiting	55 22.8%	75 31.1%	50 20.7%	41 17.0%	20 8.3%	241 54.8%	0.047
	Palpitation	8 19.5%	7 17.1%	10 24.4%	5 12.2%	11 26.8%	41 9.3%	
	Dizziness	4 9.1%	15 34.1%	12 27.3%	10 22.7%	3 6.8%	44 10.0%	
	Headache	10 20.8%	14 29.2%	15 31.3%	7 14.6%	2 4.2%	48 10.9%	

	Others	13	17	14	11	11	66	
		9.7%	25.8%	21.2%	16.7%	16.7%	15.0%	
Know the medication classification of Over-the-counter (OTC) and prescription only drugs	Yes	36	31	33	16	5	121	
	No	30	73	53	44	29	229	0.001
	Maybe	24	24	15	14	13	90	
		13.1%	31.9%	23.1%	19.2%	12.7%	52.0%	
	26.7%	26.7%	16.7%	15.6%	14.4%	20.5%		

NS = Non-significant (P>0.05); * = Significant (P<0.05); ** = Highly significant (P<0.01)

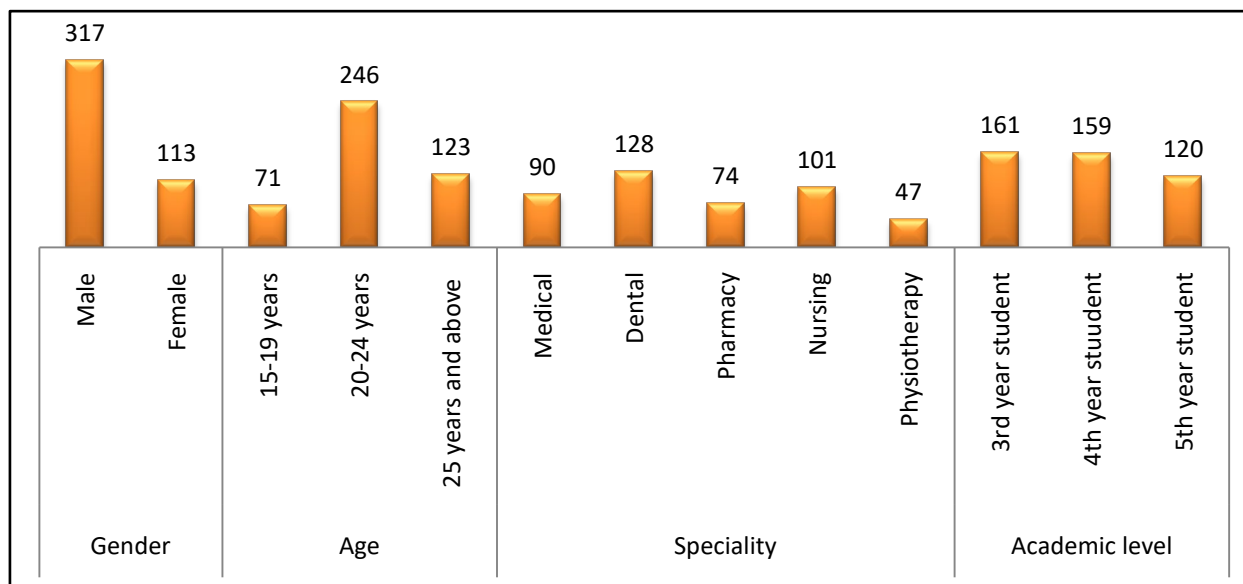


Figure 1: Demographic details of Participants

Table 3: Distribution of respondents on basis of attitude towards self-medication.

Response	Specialty					Total	p-value	
	Medical	Dental	Pharmacy	Nursing	Physiotherapy			
Opinion about Self medication	Very useful	19	16	10	11	4	60	0.215
		31.70%	26.70%	16.70%	18.30%	6.70%	13.60%	
	Useful	34	49	42	25	18	168	
		20.20%	29.20%	25.00%	14.90%	10.70%	38.20%	
	useless	16	30	29	20	9	104	
		15.40%	28.80%	27.90%	19.20%	8.70%	23.60%	
	Very useless	12	8	9	9	5	43	
		27.90%	18.60%	20.90%	20.90%	11.60%	9.80%	
	I don't know	9	25	11	9	11	65	
		13.80%	38.50%	16.90%	13.80%	16.90%	14.80%	
Reasons for self medication	Having an adequate knowledge about medications and disease	55	63	61	43	18	240	0.013
		22.90%	26.30%	25.40%	17.90%	7.50%	54.60%	
	Previous experience	19	20	10	14	5	68	
		7.90%	29.4%	14.70%	20.60%	7.40%	15.50%	
	Time saving	9	13	9	8	10	49	
	8.40%	26.50%	18.40%	16.30%	20.40%	11.10%		
Low cost	5	16	12	2	6	41		
	2.20%	39.00%	29.30%	4.90%	14.60%	9.30%		

Experience of other friends/family to the drug	2	16	9	7	8	42
	4.80%	38.10%	21.40%	16.70%	19.00%	9.50%

NS = Non-significant (P >0.05); * = Significant (P<0.05); ** = Highly significant (P<0.01)

Table 4: Respondents distribution on the basis of their practice of self-medication

Response		Specialty					Total	p-value
		Medical	Dental	Pharmacy	Nursing	Physiotherapy		
Have you taken any medication in the last year without doctor's prescription	Yes	41 28.5%	45 31.3%	29 20.1%	21 14.6%	8 5.6%	144 32.7%	0.013
	No	36 15.6%	65 28.1%	62 26.8%	41 17.7%	27 11.7%	231 52.5%	
	Maybe	13 20.0%	18 27.7%	10 15.4%	12 18.5%	12 18.5%	65 14.8%	
satisfied by practicing self-medication	Yes	30 25.9%	30 25.9%	22 19.0%	20 17.2%	14 12.1%	116 26.4%	0.838
	No	7 16.7%	14 33.3%	10 23.8%	7 16.7%	4 9.5%	42 9.5%	
	I don't know	13 25.5%	16 31.4%	11 21.6%	8 15.7%	3 5.9%	51 11.6%	
duration of self-medication	Till I feel good	25 24.35%	33 32.0%	19 18.4%	16 15.5%	10 9.7%	103 23.4%	0.022
	Till the course end	18 30.6%	15 30.0%	9 18.0%	6 12.0%	2 4.0%	50 11.4%	
	I don't know	14 25.0%	14 25.0%	18 32.1%	5 8.9%	5 8.9%	56 12.7%	

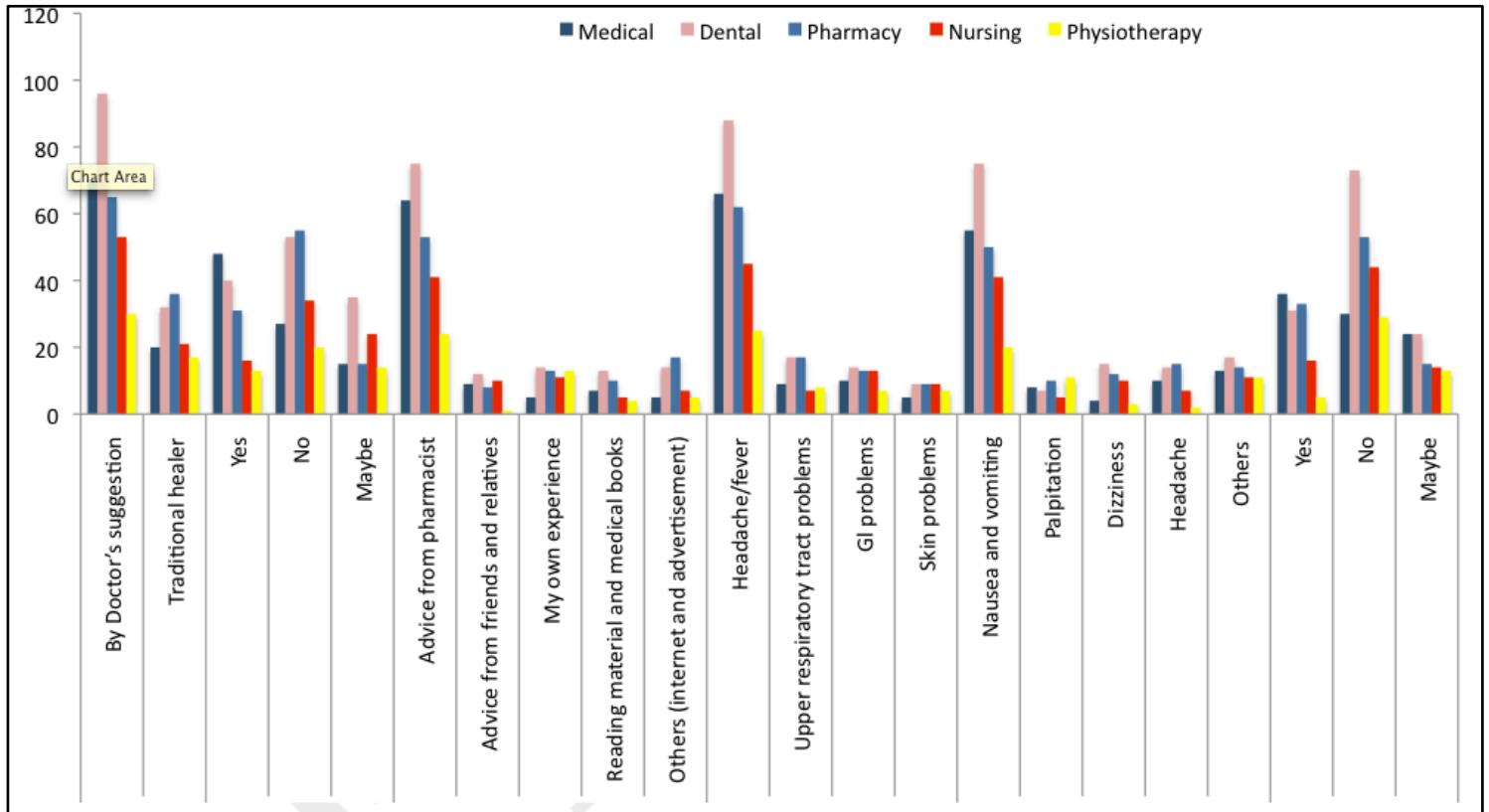


Figure 2: Knowledge on self-medication by medical students

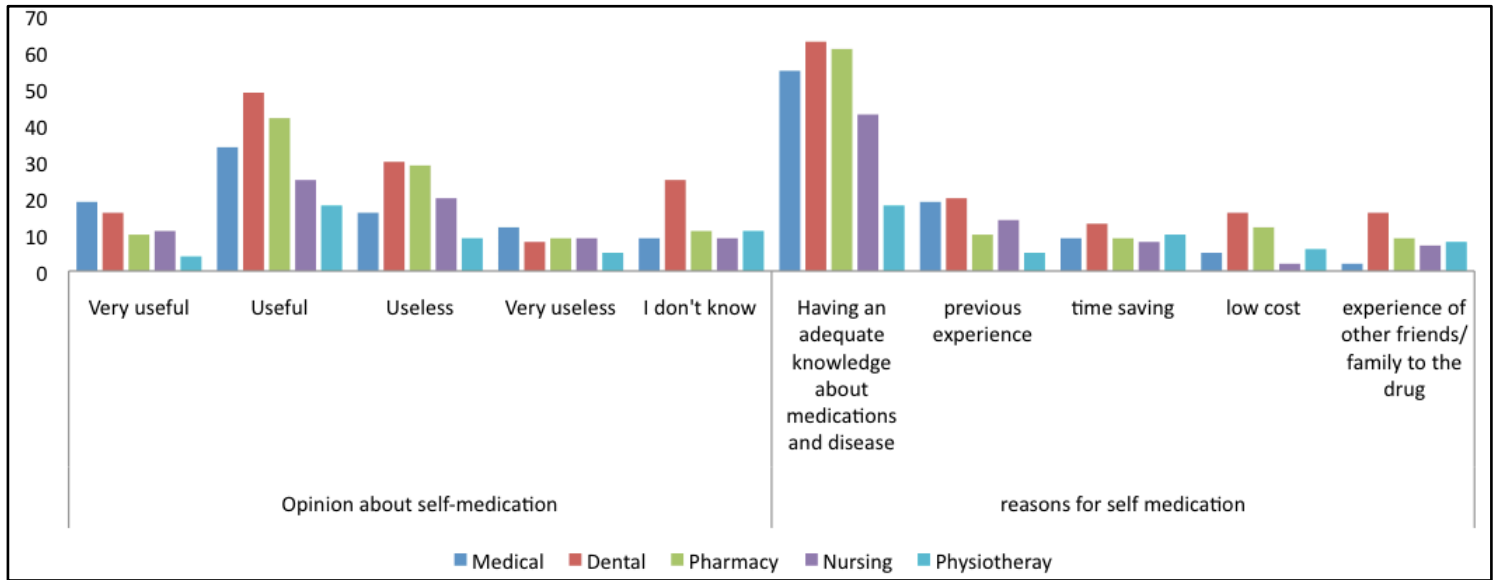


Figure 3: Attitude of participants towards self-medication

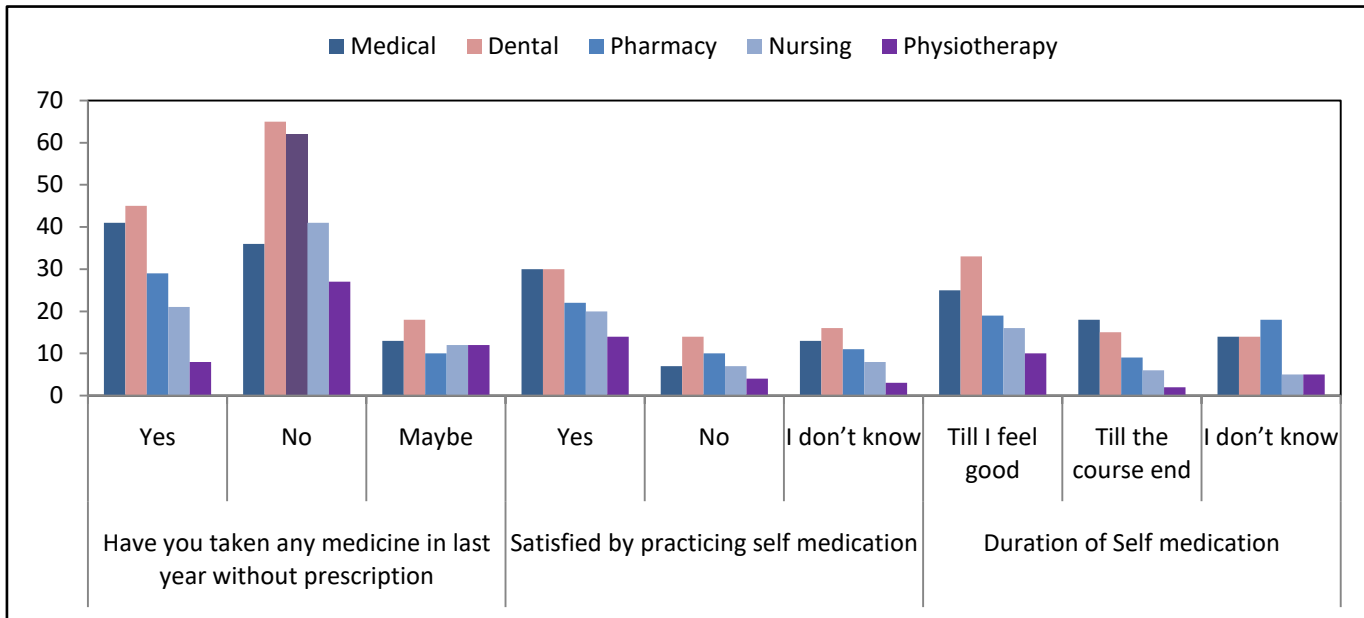


Figure 4: Self-medication practice of participants

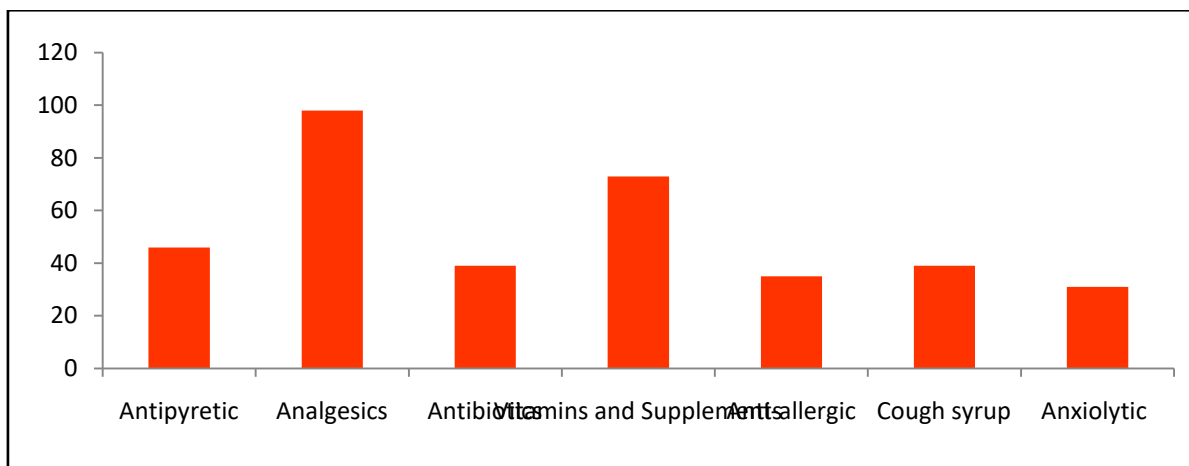


Figure 5: Distribution of medicines used as self-medication

Attitude:

Out of 440 respondents 168 (38.2%) considered self-medication useful while 104 thought it useless. 54.6% of participants thought that reason for self-medication is knowledge about disease and medicine. Previous experience, timesaving, low cost and experience of family/friends/relatives was the reason for 68 (15.5%), 49 (11.1%), 41(9.3%) and 42 (9.5%) respectively. There is no significant relationship between attitude and speciality of participants (Table 3).

Practice:

Most of the participant (52.5%) used any medication in the last year by doctor's prescription only 47.5% practiced self-medication in last year without doctor's prescription. Out of this 47.5%, most commonly (27.1%) practiced medicine was Analgesic/NSAIDs followed by Vitamins and supplements (20.2%), Antipyretic (12.7%), both Antibiotic and Cough syrup (10.8%), Anti-allergic (9.7%) and Anxiolytic (8.6%) (Fig: 4). 103 (23.4%) respondents said that they practice self-medication till they feel good while 11.4% practiced it till the course end. comparison of practice with speciality was non-significant (Table 4).

Discussion:

Self-medication means the treatment of different illness and diseases without the suggestion of a doctor. Its inappropriate use can lead to harmful effects on health. Total of 440 health professionals from different specialities participated in this survey. They have adequate knowledge about this term, which is similar to the findings of other studies. [13, 14] It has been revealed in this

study that most common reason for the use of self-medication was headache/fever, which is in line with the findings of Shah et al. [15] that concluded that most frequent condition for self-medication. Symptoms for which students tend for self-medication were cold, vomiting, hyperacidity and fever. [16] In the same study [15] it has been found that antipyretics and analgesics were the commonly used drugs. Same results were found in the current study. Other studies also proved that use of antipyretics and analgesics. [17, 18] Despite having the knowledge about SM, a large number of participants showed a negative attitude, they considered it very useful or useful. This was similar to the study of who reported negative attitude and inappropriate practice among health science students. [19] Most of the participants 52.5% in this survey didn't practiced SM. This result can be compared with the other findings where same or higher use of self-medication was reported. [20] Particularly, this range lied between 51% and 75% in Saudi Arabia. [21] There is no significant association between speciality and self-medication practice in the current study. Similarly, in another survey, no relationship was found between high medical knowledge and self-medication. [22] The dispense of antibiotics is alarmingly high despite regulations mandated by the Saudi Authorities [23].

Conclusion:

Individuals who participated in the survey had a reasonable amount of knowledge about self-medication. However, attitude toward SM and its practice needs to be addressed. More seminars and conferences should be arranged to highlight this issue in

professionals as well as in the general public. The dispense of OTC products should be strictly regulated.

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Edited by P Kanguane

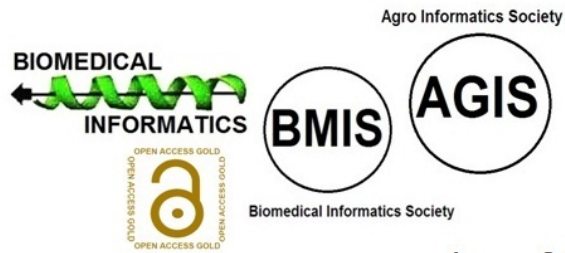
Citation: Khan *et al.* Bioinformation 17(5): 599-607 (2021)

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