IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS)
e-ISSN:2278-3008, p-ISSN:2319-7676. Volume 13, Issue 1 Ver. III (Jan. – Feb. 2018), PP 16-21
www.iosrjournals.org

Self-Prescription and Therapeutic Attitude Among Students in Baghdad College of Medicine.

Samara M. Ali* ;Ameer Talib Abd; Hamza KhalifMazyad; Ammar Issa Amran**
[1] Instructor [2]Dept. of Pharmacology / Baghdad College of Medicine.
*** 4th grade students/ Baghdad Medical College.*
Corresponding Author:Samara M. Ali

Abstract: *Self- prescribed drugs comprises a big problem in medicine since drug resistance, cumulative side-effects, drug interactions may harm more than the benefit needed from it. In this study we focused on the population of medical students in Baghdad Medical College and evaluate how much they are aware of what misuse can do.*

Date of Submission: 12-01-2018 Date of acceptance: 29-01-2018

I. Introduction

Self-medication refers to consuming drugs, which have not been prescribed, recommended or controlled by an authorized health care specialist(1). It has been defined by World health Organization (WHO) as the choice and use ofmedicines by individuals to treat self-diagnosed illnesses or symptoms(2). Although medical studentscomprise an important bulk of the drug self-prescribing population, this phenomenon is not exclusive to them. Prevalence of self-medication in different population groups has been studied(3)worldwide and Middle East. But unlike the other groups of the population, when physicians become ill,they can prescribe medicines for themselves very easily. Medical knowledgeand right to prescribe medications increase the attitude towards self-treatment(4,5). Medical students during their study contacts with diseases and their treatments which make it easier for them to obtain various informations with accessibility to drugs (6), this is why – from our point of view, this issue should be taken in consideration because it is double edged sword.

Aim of the study

To assess the pattern of self-medication practice among undergraduate medical students from year one to five in Baghdad Medical College.

II. Method

This cross-sectional study was held in Baghdad Medical College between March and December 2017.The study population consists of medical students from first to fifth year,it included 300 students, within the age group of 18–23 years. They were selected for the study by a convenient sampling method. The participants were informed about the nature of the study, permission was taken and questionnaire papers were given to them. Questionnaire included every possible question related to use of drugs, how and when to prescribe, details concerning outcomes of this prescription etc. Thethree investigators who ran this show from the fourth grade were present in case the respondents required assistance e.g what is the point beyond this question or that, these questions were almost from the first grade students.Below the questionnaire used in our study.

Age :-	Gender:-	Grade:-
1-do you prescribe medication for yourself without consultation from a senior doctor?	yes	No
2-when you have a disease what will you do?	Prescribe a drug	
	Go to physician	
	Read about disease andtake drug	
	Don't worry	
3- Do you prescribe any of the followings drugs for you self?.	Antibiotic such as(amoxicillin/azithromycin) etc.	
	NSAID such as (aspirin, ibuprofen) etc.	
	Corticosteroid dexamethasone etc.	

	Other Painkillers, paracetamol, opiates such as morphine or codeine etc.	
	GIT (omeprazole, ranitidine) etc.	
	Antihistamines (loratidine, disloratidne) etc.	
	Antidepressants	
	Cardiovascular problems (propranolol) etc.	
	Others.....	
4-have you ever suffered from any side effect of self-prescribed drugs?	Yes	No
If yes, what are these symptoms?	Nausea	
	Vomiting	
	Diarrhea	
	Abdominal pain	
	Allergic reaction	
	Headache	
	Sleepiness	
5-Do you complete the course of drugs which you use?	Yes	No
6-Do you read the info paper attached to drugs you use?	Yes	No
7-do you prescribe medication for you family/friend?	Yes	No
-which type of drug you prescribe to them:	Antibiotic such as (amoxicillin/azithromycin) etc.	
	NSAID such as (aspirin, ibuprofen) etc.	
	Corticosteroid dexamethasone	
	Other Painkillers , paracetamol, opiates such as morphine or codeine etc.	
	GIT (omeprazole, ranitidine)etc.	
	Antihistamines (loratidine,disloratidne) etc.	
	Antidepressants	
	Cardiovascular problems (propranolol) etc.	
	Others.....	
Do you notice on them any side effect of self-prescribed drugs?	Yes	No
If yes, what are these symptoms?	nausea	
	vomiting	
	diarrhea	
	abdominal pain	
	Allergic reaction	
	Headache	
	Sleepiness	
8-do you prefer chemical medication or herb medication?	Chemical medication	Herb medication

III. Results

Table (1) **distribution according to gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	94	31.3	31.3	31.3
	female	206	68.7	68.7	100.0
	Total	300	100.0	100.0	

Our study sample composed of 300 students, 94 male students and 206 females, 60 students from each of the five grades. With a percentage of female 68.7% higher than male 31.3%.

Table (2)prevalence of first question (do you prescribe medication for yourself without consultation from a senior doctor**?)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	173	57.7	57.7	57.7
	no	127	42.3	42.3	100.0

	Total	300	100.0	100.0	

Table shows 173 (57.7%) of students said (yes)and 127 (42.3%) of students said (No)

Table(3- A)**prevalence of data for first question within gender**

			Yes	No	Total
gender	male	Count	65	29	94
		% within gender	69.1%	30.9%	100.0%
	female	Count	108	98	206
		% within gender	52.4%	47.6%	100.0%
Total		Count	173	127	300
		% within gender	57.7%	42.3%	100.0%

Table (3- B) chi-square of table (3)

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7.393a	1	.007		
Continuity Correction	6.724	1	.010		
Likelihood Ratio	7.550	1	.006		
Fisher's Exact Test				.008	.004
Linear-by-Linear Association	7.369	1	.007		
N of Valid Cases	300				

As it is noticed 65 (69.1%) of male participants in comparison to 108(52.4 %) of female participants said (yes) to this question (p value= 0.007).conversely 29 (30.9%) of male and 98 (47.6%) females answered with (No).

Table (4-A)**prevalence of first question data between grades**

			Yes	No	Total
grade	first	Count	27	33	60
		% within grade	45.0%	55.0%	100.0%
	second	Count	35	25	60
		% within grade	58.3%	41.7%	100.0%
	third	Count	41	19	60
		% within grade	68.3%	31.7%	100.0%
	fourth	Count	27	33	60
		% within grade	45.0%	55.0%	100.0%
	fifth	Count	43	17	60
		% within grade	71.7%	28.3%	100.0%
Total		Count	173	127	300
		% within grade	57.7%	42.3%	100.0%

Table (4-B**) analysis of data in table (4 _A)**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.511a	4	.004
Likelihood Ratio	15.702	4	.003
Linear-by-Linear Association	3.919	1	.048

In table(4-A)27 (45%) of first grade, 35 (58.3%) of the 2nd, 41 (68.3%) of 3rd, 27 (45%) of 4th and 43 (71.7%) of fifth grade answered with (Yes). Conversely 33 (55%), 25 (41.7%), 19 (31.7%), 33 (55%) and 17 (28.3%) respectively answered with (No) , p value(0.004) .

Table (5)prevalence of Q3 answers (Which type of drugs you prescribe for yourself?)

		yes	no	Total
Antibiotic such as(amoxicillin/azithromycin)	Count	175	125	300
	%	58.3%	41.6%	100.0%
Painkillers, , NSAID	Count	210	90	300
	%	70 %	30%	100.0%
Others	Count	31	31	300
	%	10.3%	89.6 %	100.0%

The Data in this table shown the tendency of students to self- prescribe drugs for themselves. As shown, the majority says (Yes) for prescribing antibiotics and analgesics. But

Table(6-A)prevalence of the question (do you complete the course of treatment you prescribe for yourself?) among grades**.**

			Yes	No	Total
grade	first	Count	32	28	60
		% within grade	53.3%	46.7%	100.0%
	second	Count	29	31	60
		% within grade	48.3%	51.7%	100.0%
	third	Count	32	28	60
		% within grade	53.3%	46.7%	100.0%
	fourth	Count	35	25	60
		% within grade	58.3%	41.7%	100.0%
	fifth	Count	43	17	60
		% within grade	71.7%	28.3%	100.0%
Total		Count	171	129	300
		% within grade	57.0%	43.0%	100.0%

Table(6-B)Data analysis for (6-A)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.806a	4	.099
Likelihood Ratio	8.024	4	.091
Linear-by-Linear Association	5.313	1	.021
N of Valid Cases	300		

In table(6)the percentage of participants who answered with yes or no according to each grade.It was highest in fifth grade (71.7%) and lowest in first and second grade (48.3%) p value (0.099).

Table(7-A) prevalence of answering the question (do you read the info paper attached with drugs you used?) among five grades :

			Yes	No	Total
grade	first	Count	27	33	60
		% within grade	45.0%	55.0%	100.0%
	secon d	Count	33	27	60
		% within grade	55.0%	45.0%	100.0%
	third	Count	35	25	60
		% within grade	58.3%	41.7%	100.0%
	fourth	Count	47	13	60
		% within grade	78.3%	21.7%	100.0%
	fifth	Count	41	19	60
		% within grade	68.3%	31.7%	100.0%
Total		Count	183	117	300
		% within grade	61.0%	39.0%	100.0%

Table(7-B) Data analysis for (7-A)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.478a	4	.002
Likelihood Ratio	16.954	4	.002
Linear-by-Linear Association	12.317	1	.000
N of Valid Cases	300		

The data in table (7) shows if any of the participants takes few moment in looking at drug sheets. Data shows lowest in first grade (45%),followed by second (55%), then third (58.3%),fourth(78.3%), then again declined but not too much at fifth year (p value 0.002).

Table(8-A)prevalence of question (do you prefer chemical or herbal medication)

			Chemical medication	Herb medication	Total
grade	first	Count	46	11	57
		% within grade	80.7%	19.3%	100.0%
	second	Count	42	17	59
		% within grade	71.2%	28.8%	100.0%
	third	Count	52	8	60

		% within grade	86.7%	13.3%	100.0%
	fourth	Count	37	22	59
		% within grade	62.7%	37.3%	100.0%
	fifth	Count	49	9	58
		% within grade	84.5%	15.5%	100.0%
Total		Count	226	67	293
		% within grade	77.1%	22.9%	100.0%

Table(8-B) chi-square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.419a	4	.009
Likelihood Ratio	13.176	4	.010
Linear-by-Linear Association	.003	1	.957
N of Valid Cases	293		

In table (8) the highest number of participants that prefers chemical over herbal drugs was among 3rd grade students 52 (86.7%), followed by 5th grade 49 (84.5%), then first 46 (80.7%), second 42 (71.2%) and 4th 37 (62.7%) with (p value=0.009)

Table (9-A)prevalence of answering the question (do you prescribe for family and friends?)

			Yes	No	Total
grade	first	Count	10	50	60
		% within grade	16.7%	83.3%	100.0%
	second	Count	10	50	60
		% within grade	16.7%	83.3%	100.0%
	third	Count	13	47	60
		% within grade	21.7%	78.3%	100.0%
	fourth	Count	22	38	60
		% within grade	36.7%	63.3%	100.0%
	fifth	Count	36	24	60
		% within grade	60.0%	40.0%	100.0%
Total		Count	91	209	300
		% within grade	30.3%	69.7%	100.0%

Table(9-B) chi-square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	38.866a	4	.000
Likelihood Ratio	37.724	4	.000
Linear-by-Linear Association	32.197	1	.000
N of Valid Cases	300		

In table (9) it is clear that the number of participants who prescribe for family and/ or friends in each grade increases gradually from grade one to five but not greater than 60% in all cases. (p value=0.000)

IV. Discussion

Table(1) in our study participation among female more than male.This is a normal finding of our college society since already female counts more than male when registered. Many reasons stand behind that, one of them is the collateral damage resulted from wars and explosions in our country. Table(2) The prevalence of self-medication among the study participants in all five grades is higher than the percentage of participants who not prescribe. This finding agreed with the only study in this subject in South India [7] Table (3) The percentage of males who prescribe medication is higher than females. This study agreed with previous study in south India[7] this may be due that male may carry more courage than females specially with the circumstances of threats against doctors in Iraq females tend to be more conservative in these situations.In table (4) there is direct proportion between the prescription and grades, this would explain the level of knowledge in fifth grade about the medication in comparison with lower grade witch have less level of knowledge in medication, this table may appear similar to table (9) in fact that the higher grade students is more susceptible to prescription for themselves and their friend/family in the same manner , no previous study improve this finding.Table(5)reveals how analgesics pain killers and NSAIDsas self- prescribed drugs are higher in level of prescription followed by antibiotics. No specific reason but they explained this by saying that analgesics are needed more than antibiotic as daily requirement. Other groups of drugs composed the least percentage. No study handled this issue among

medical students.Table (6) shows the percentage of fifth grade students who complete coarse of drug is higher than other grades because of their betterlevel of knowledge of drug administration, side effect, drug interaction than other grades, no previous study included this issue.Table(7)shows that the fourth and fifth grades had the higher percentage of reading info paper than other grades because they aremore aware of the drug interaction, precautions, side effects etc. this due to more hours in clinical attachments in their courses which make them more eager to compare information they get from different sources. In table(8) here we see the percentages that all medical students prefer chemical medication in comparison to herb medication because of medical knowledge of students. Some of them refers to that the chemical drugs are faster in action and some are shorter in durations. Others think that sources of herbal drugs may be not guaranteed. Still many reasons stand behind that. No previous study improved this finding.

V. Conclusion

Two reasons stood behind running this study , first , Baghdad College of medicine ran a new system in medical education since 2012. It is the integrated system in which students from the first year become in contact with clinical part of physician's life even in simple level. And by time this level increases in proportion with the students' advance in study. This may give them early informations about drugs and makes them eager to feel just like a doctor. Second, the free markets here in Iraq without legislations that makes the self- prescription an easy manner. Not forgetting the attractions to work for these companies. Sixth year students were not involved because they are almost allowed to prescribe drugs since they are considered in our country as similar as resident physician.To the best of our knowledge there is only one study ran in South India published in 2012 that held the same subject but in different analytical manner [(7).]

Reference

[1]. L, F. (2017) Analysis and quantification of self-medication patterns of customers in community pharmacies in southern Chile.Pharm. World Sci (2008) 30: 863. doi:10.1007/s11096-008-9241-4 .

[2]. World Health Organization/Drug Action Program (WHO/DAP). Public Education in Rational Drug Use; Report of an Informal Consultation, 23-26 November 1993, Geneva.

[3]. Godeliver A.B. Kagashe1, Bumbuli Msela2: Self medication among patients seen at ophthalmology clinics at four hospitals in dares salaam Tanzania. IOSR Journal of Pharmacy ISSN: 2250-3013, www.iosrphr.org Ⅱ Volume 2 Issue 5 Ⅱ Sep-Oct. 2012 Ⅱ PP.21-25.

[4]. Allibone A, Oakes D, Shannon HS. The health and health care of doctors. J R Coll GenPract.1981;31: 728-734.

[5]. Wachtel TJ, Wilcox VL, Moulton AW, Tammaro D, Stein MD. Physicians' utilization of care. J Gen Intern Med 1995; 10:261-265.

[6]. James H, Handu SS, Khalid AJ, Khaja A, Otoom S, Sequeira RP.. Evaluation of the knowledge, attitude and practice of self-medication among first-year medical students. Med PrincPract. 2006;15:270–275.[PubMed].

[7]. Badiger S1, Kundapur R, Jain A, Kumar A, Pattanshetty S, Thakolkaran N, Bhat N, Ullal N. Self-medication patterns among medical students in South India, Australas Med J. 2012;5(4):217-20. doi: 10.4066/AMJ.2012.1007. Pub 2012 Apr 30.

Samara M. Ali."Self-Prescription And Therapeutic Attitude Amongstudents In Baghdad College Of Medicine.." IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS) 13.1 (2018): 16-21.