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Patient's Knowledge of Basic Medication Information in Saudi Arabia

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Abstract

Objective: To explore the Patients and Basic Knowledge of Medications in Saudi Arabia. **Methods:** It is a 4-months cross-sectional survey of patient and basic knowledge of medicines. The survey consisted of two-part, demographic information and second part forty-nine questions divided into four domains. It included domain 1: Primary or essential information about patient medication, domain 2: patient information about the drug-related problem, domain 3: patient information about drug-related cost and domain 4: patient's perception about medications. Medline Plus health information and DailyMed-INH elements information from National Institute of Health United State of America were used. The 5-point Likert response scale system was used. The questions were open and closed-ended. The survey distributed through social media and at 500-bed pediatrics and maternity hospital in Asir region, at ambulatory care pharmacy. The authors did the patients interview with electronic survey documentation. The survey was made in an electronic format and it analyzed domain one Primary or necessary information about patient medication through survey monkey system. **Results:** The total responders were (614) patients with Saudi 564 (96.1%) and Non-Saudi was 23 (3.9%) nationalities. The gender distribution 523 (85.2%) were females and 91 (14.8%) were males. The most type of medications used was anti-diabetic and anti-hypertension medicines, Skin medications and drugs for Respiratory Diseases. The responders showed poor knowledge either they do not know or weak information about the generic name of Medicines 300 (54.8%), the trade name 246 (46.8%). While adequate knowledge both complete and incomplete information of drug strength 324 (60.9%) and dosage form of medication 377 (70.6%). The patients showed adequate knowledge about medications with both complete information and incomplete information about drug indication 456 (77.8%), how to use medications 496 (84.78%), the administration time 493 (84.71%), the potential to adhere medication 431 (73.9%) and the time to stop drugs 391 (67.1%). The majority of responders used health care providers 346 (57%), drug bulletin 341 (56.2%), Internet 221 (36.4%) and Relatives and friends 137 (22.57%) as sources of drug information. **Conclusion:** The finding showed indigent essential drug information knowledge. Targeting of public awareness of necessary information about their medications and patient counseling system will prevent drug misadventures and drug-related morbidity and mortality in Saudi Arabia.

Key words: Patient, Knowledge, Medications, Ministry of Health, Saudi Arabia.

INTRODUCTION

The pharmacists had a major role in medications information dissemination with drug distribution.[1] The knowledge of medication distribution through several pharmacy services and program included but not limited to drug information services, patient's medication education program, medication safety program and pharmacists intervention system.[2] Several international pharmacy organizations recommended to the established system of medication information distribution system with the previous method.[3-5] The central question behind that was, did the patient need the medication information and the knowledge of drugs? The patient's Knowledge about medications used varies and may lead to incorrect use, causing a decline in effectiveness or appearance of other health problems. When the patient arrives in the conviction and knowledge that treatment taken leads to improved health status, its components and its compounds are safe and there are no side effects. Thus this leads to making patient regulate the use of the drug and keep it to taking at appropriate time prescribed by the doctor. Hence, the importance of showing that the patient is familiar with the treatment used until final results will be positive and help in response to the patient's condition with treatment and because of compliance (adherence) to an essential drug. For the effective medical treatment, there is no doubt that the patient's knowledge has an impact on their diseases and knowledge management of patients that can affect compliance and control of their diseases and the morbidity and mortality of patients. A fundamental pillar to facilitate obtaining excellent results in pharmacotherapy lies in the adequate knowledge of patients regarding their pharmacological treatment.[6-8] Several studies conducted to measure the actual patient medication knowledge.[9-12]

Those studies were done at hospitals or community pharmacy with a different number of sample and various specialties. Few studies were done in Saudi Arabia with a limited number of patients and limited depth detail.[13-14] It is hard to find investigation to reflect the actual necessary information of medications knowledge with high number of patients and detail information in Saudi Arabia, Gulf or Middle East counties. The objective of this study was to explore the patient's knowledge about medications at ambulatory care visits and through community-based in Kingdom of Saudi Arabia.

METHODS

It is a 4-months cross-sectional survey of patient and basic knowledge of medicines. The survey consisted of two-part, demographic information and second part forty-nine questions divided into four domains. It included domain 1: Primary or essential information about patient medication, domain 2: patient information about the drug-related problem, domain 3: patient information about drug-related cost and domain 4: patient perception of medications. Medline Plus health information and DailyMed-INH elements information from National Institute of Health United State of America were used.[15-16] The 5-point Likert response scale system was used. The questions were open and closed-ended. The survey distributed through social media and at 500-bed pediatrics and maternity hospital in Asir region, at ambulatory care pharmacy. The hospital accredited by Saudi Center for Healthcare organization (CBAHI) and Joint Commission on Hospital Accreditation from the United States of America (USA).[17-18] The hospital's several departments such as Pediatrics, Obstetrics and Gynecology were included. It had Adults, Pediatrics and Neonatal critical care, with the separated nursing unit. In addition to medical and surgical sections for adults, pediatrics and neonates. The pharmacy departments distributed the medication through unit dose system according to CBAHI standards and American Society of Health-System standards. Also, the pharmacy had inpatient pharmacy, outpatient pharmacy, Intravenous Admixture services with professional Total Parenteral Nutrition. The clinical pharmacy services did not entirely exist except some programs for an instant; drug information center, patient-counseling services and medication safety program. The authors did the patients interview with electronic survey documentation. The survey was made in an electronic format and it analyzed domain one Primary or necessary information about patient medication through survey monkey system.

RESULTS

The total responders were (614) patients with Saudi 564 (96.1%) and Non-Saudi 23 (3.9%) nationalities. The gender distribution 523 (85.2%) were females and 91 (14.8%) were males. The majority of them in age (18-44) 78.3% and located at Asir region 325 (52.93%) and Riyadh region 163 (26.54%). The most patients had the Bachelor Degree 311 (50.65%) followed by High school 138 (22.48%) and Diploma 47 (7.65%). The most type of medications used was anti-diabetic and anti-hypertension medicines, Skin medications and drugs for Respiratory Diseases. Also, the total patient currently taking medication were 249 (43.23%). Of those the most number of medication taken were either one 96 (38.55%), two medications 79 (31.73 %%), three medications 25 (10.04%) and four medications 24 (10.04%) as explored in Table 1. The responders showed poor knowledge either they do not know or weak information about the generic name of Medicines 300 (54.8%), the trade name 246 (46.8%). While adequate knowledge both complete and incomplete information of drug strength 324 (60.9%) and dosage form of medication 377 (70.6%) as explored in Table 2. The patients showed adequate knowledge about medications with both complete information and incomplete information about drug indication 456 (77.8%), how to use medications 496 (84.78%). The administration time 493 (84.71%), what to do if forgot one dose 315 (54.5%), the potential to adhere medication 431 (73.9%) and the time to stop drugs 391 (67.1%) as explored in Table 3.

Table 1: Demographic responder qualifications information.

Characteristics	Response N	Response %
Sex		
Female	523	85.2%
Male	91	14.8%
Answered question	614	100%
Skipped question	0	
Nationality		
Saudi	564	96.1%
Non-Saudi	23	3.9%
Answered question	587	100%
Skipped question	27	
Age		
<18	34	9.9%
18 - 29	267	103.0%
30 - 44	214	60.9%
45 - 59	87	22.5%
60+	12	3.6%
Answered question	614	100%
Skipped question	0	
Total Experiences		
Doctorate degree	7	1.14%
Master degree	17	2.77%
Bachelor Degree	311	50.65%
Diploma	47	7.65%
High school	138	22.48%
Intermediate School	33	5.37%
Primary School	27	4.40%
Not educated	34	5.54%
Answered question	614	100%
Skipped question	0	
The current medications		
Diabetic Medication	79	12.91%
Antihypertensive Medication	64	10.46%
Cardiac Medication	13	2.12%
Asthma Medication	50	8.17%
Derma Medication	57	9.31%
Anti-Rheumatic	32	5.23%
Do not take anything now	412	67.32%
Others	87	14.22%
Answered question	612	100%
Skipped question	2	
Number of current medication taken		
Nothing	327	56.77%
1	96	38.55%
2	79	31.73%
3	25	10.04%
4	24	9.64%
5	13	5.22%
6	5	2.01%
7	3	1.20%
8	0	0.00%
9	1	0.40%
10	2	0.80%
more than 10	0	0.00%
Answered question	576	
Skipped question	38	

Table 2: General Information on used medication.

No.	Answer Options	Complete information	Incomplete information	Weak information	I do not have information	I do not need this information	Rating Average	Response Count
1	The generic name	99	102	93	207	46	3.00	547
2	The trade name	138	97	94	152	44	3.25	525
3	The drug strength	211	113	76	106	26	3.71	532
4	Dosage form of medications	307	70	49	72	36	4.01	534
answered question:580 and skipped question:34								

Table 3: Basic information on medication used.

No.	Answer Options	Complete information	Incomplete information	Weak information	I do not have information	I do not need this information	Rating Average	Response Count
1	Drug Indication	333	123	46	45	39	4.14	586
2	How to use the medications	419	77	24	33	32	4.40	585
3	Medication administration time	419	74	26	28	35	4.40	582
4	What to do if I forgot one dose	183	132	77	143	43	3.47	578
5	Adherence to medication and it is important	325	106	61	59	32	4.09	583
6	The time to stop treatment	293	98	76	77	39	3.91	583
Answered: 590 and skipped questions: 24								

Table 4: The resources of Drug Information.

Answer Options	Response N	Response %
Health practitioners	346	57.00%
Drug Bulletin	341	56.18%
Relatives and friends	137	22.57%
The Internet	221	36.41%
Drug Information Center at the hospital	54	8.90%
lecture in hospital	11	1.81%
Lectures in health center	6	0.99%
Drug education in markets Exhibition	10	1.65%
Other (please specify)	6	0.99%
answered question: 607 and skipped question: 7		

The majority of responders used health care providers 346 (57%), drug bulletin 341 (56.2%), Internet 221 (36.4%) and Relatives and friends 137 (22.57%) as sources of drug information as explored in Table 4.

DISCUSSION

The General administration of pharmaceutical care at Ministry of Health in Saudi Arabia released the updated vision and mission of the administration within period 2012-2020.[19] The main concept of both vision and mission was medication and their knowledge distribution to all the type of patients. The pharmacy administration established several services to facilitate that vision and mission, for instant national drug information centers, participated though MOH hotline 937, established the patient education program, medications safety system for patient and healthcare professionals and patients' satisfaction of pharmacy services.[20-22] Those services demanded several committees, meeting, policy and procedures activities, time and money and a lot of pharmacist's effort. Although of significant improvement of the pharmacy services over the past years, the questions raised does the patient need all those services to distribute the medication and drug knowledge. Was the patient had poor knowledge implicated them to mistakes and problems, what is the level of medication's knowledge of patients in Kingdom of Saudi Arabia? To answer all those inquiries, the investigator and his team tried to explore the fundamental patient knowledge of medications. The finding of the study showed half of the patients were not familiar with generic of trade drug name. This result was lower than what reported by Rubio JS *et al.* in Portugal and better than what reported by Perera, T *et al.* in Sri Lanka. That has related proper health education and speaking in the English language while poor health education in Sri Lanka and English language.[11-12] While in our country, the study has shown acceptable English language and health education. The results of drug strength, dosage form, drug indications, how to use medication, administration time resemble what reported by Rubio JS *et al.* in Portugal and better than in drug doing what reported by Perera, T *et al.* in Sri Lanka with same previous reasons.[11-12] Another result of what to do if patient forgot one dose, the potential to adhere medication could not compare it because it did not mention in both studies. Most of the patient got their drug knowledge from healthcare providers looks like what reported by Williams, L *et al.* as first choice, the second resources of medication knowledge was drug bulletin and internet different what reported by Williams, L *et al.* reported their relatives. That is because our population was younger than previous study and they were familiar with reading drug bulletin and using internet available everywhere as comparisons of a study published before ten years. Based on the results, we can deduce that patients know some information about their medications, but not all. Especially the name of the medicine they use. This study identified some key themes that might be useful in enhancing the awareness of experiences, knowledge, adherence and attitudes of patients. More efforts of pharmacy public education of their medication and a patient counseling educational program are also required to practice a healthy life.[23]

CONCLUSION

The results obtained showed a lack of knowledge among patients, essential drug information knowledge. Targeting of public awareness of necessary

information about their medications and patient counseling system will prevent drug misadventures and drug-related morbidity and mortality in Saudi Arabia.

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None

CONFLICT OF INTEREST

None

ABBREVIATIONS

KSA: Kingdom of Saudi Arabia; MOH: Ministry of Health; CBAHI: Saudi Center for Accreditation of Healthcare Institutions.

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