

Patient's Perception of Pharmaceutical Care Services; Challenges and Improving in Saudi Arabia

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ABSTRACT

Purpose: To explore the patient's perception of Pharmaceutical care services; challenges and developments in Saudi Arabia. **Methods:** It is a 4-months cross-sectional survey of patient perception of pharmacists. The survey consisted of two-part demographic information and second part forty-nine questions divided into four domains. It included domain 1: Patient general perception of pharmacist domain 2: patients' perception of pharmaceutical care services, domain 3: patient perception of visiting ambulatory care and domain 4: Patient's perception of the pharmacist's relationship and counseling. The 5-point likert response scale system was used. The questions were open and closed-ended. The survey was distributed through social media and as a 500-bed general hospital in Alhasa region, an ambulatory care pharmacy. The authors did the patients interview with electronic survey documentation. The survey was made an electronic format and it analyzed domain two about patient perception of pharmaceutical care services; challenges and developments in Saudi Arabia through the survey monkey system. **Results:** The total responders were 617 patients. Of those, 536 (87.7%) was Saudi and 75 (12.3%) was non-Saudi. The gender distribution 457 (74.1%) were females and 160 (25.9%) were males. The majority of patients visited the pharmacy in the past 12-months was 222 (36%) more than ten times while 122 (19.8%) attended (5-9 times). Most of the patient visited the pharmacy at evening 395 (64.6%). Most of the patients' 481 (83.5%) spent less than 11 min with the pharmacist. The most pharmaceutical care services provided to patients were dispensing of prescribed medication 390 (70.8%), medication consultation 262 (47.5%), dispensing of non-medications, supplements 233 (42.3%) and dispensing of over the counter medications 229 (41.6%). The high scores of the pharmaceutical care services provide to the patients were in private's hospitals (3.71) and community pharmacies (3.63). The most current experience of perception and challenges with high propriety scores were some pharmacy crowding, medication labels missed and patient privacy missed. The most future perception suggestion with high propriety and opportunity scores were published the pharmacy location through social media and implementation of adverse drug reaction reporting for patients. **Conclusion:** Patients' perception is a crucial tool to improve pharmaceutical care. Monitor implementation of the patient medication education system with private places, monitoring of drug-related problems will support the future vision of patient perception and attitude towards the pharmacist.

Keywords: Patient, Perception, Pharmaceutical Care, Challenges, Saudi Arabia.

INTRODUCTION

The role pharmacist is providing the pharmaceutical care. Most of the pharmacy organizations stated that is sentences and highly recommended to follow that is guidelines.^[1-3] However, what did the pharmaceutical care provided to the patient what did the patient get the benefits of the concept? What is the patient perception of implementation of pharmaceutical care? Several studies measure the level of pharmaceutical care services in the wide world and Saudi Arabia.^[4-8] So, what is current experiences and challenges perception of pharmacy services and what is the best pharmacy services provided under the government or private sectors. Most of those questions discussed in several studies worldwide with different perception, current experience and future expectations.^[9-11] It is hard to find an investigation about the patient perception of pharmaceutical services at local study site or Gulf and

Middle East countries. The objective of the study was to explore the patient perception of pharmacist, pharmacy services, challenges and development in the Kingdom of Saudi Arabia.

METHODS

It is a 4-months cross-sectional survey of patient perception of pharmacists. The survey consisted of two-part demographic information and second part forty-nine questions divided into four domains. It included domain 1: Patient general perception of pharmacist domain 2: patients; perception of pharmaceutical care services, domain 3: patient perception of visiting ambulatory care and domain 4: Patients' perception of pharmacist's relationship and counseling. The 5-point likert response scale system was used. The questions were open and closed-ended. The propriety

and opportunities scores of 5-point scales was used for the current and future perception and challenges. The survey was distributed through social media and at a 500-bed general hospital in Alhasa region at ambulatory care pharmacy. The hospital was accredited by Saudi Center for Healthcare organization (CBAHI) and Joint Commission on Hospital Accreditation from the United States of America (USA).^[12,13] The hospital had several departments, including the adults internal medicine, adult surgery, pediatrics, obstetrics and gynecology. It had adults, pediatrics and neonatal critical care, with the separated nursing unit in addition to medical and surgical ambulatory care clinics. The pharmacy departments distribute the medication through the unit dose system according to CBAHI standards and American Society of Health-System standards. Also, the pharmacy had inpatient pharmacy, outpatient pharmacy and intravenous admixture services with professional Total Parenteral Nutrition (TPN). The clinical pharmacy services covered critical care units, internal medicine, drug information center, patient-counseling services and medication safety program. The authors did the patients interview with electronic survey documentation. The survey was made an electronic format and it analyzed domain two about patients' perception of pharmaceutical care services; challenges and developments in Saudi Arabia through the survey monkey system.

RESULTS

The total responders were 617 patients. Of those, 536 (87.7%) was Saudi and 75 (12.3%) was non-Saudi. The gender distribution 457 (74.1%) were females and 160 (25.9%) were males. The majority of them in age (18-44) 84.1% and located at Alhasa Region 255 (41.7%), Riyadh Region 150 (24.55%) and East Province region 144 (23.56%). The most educational level of the responders were Bachelor degree 395 (64.4%), followed by high school level 95 (15.5%). The majority of patients visited the pharmacy in the past 12-months was 222 (36%) more than ten times, while 122 (19.8%) attended (5-9 times). Most of the patients had the follow-up visits 192 (81.70%), while 43 (18.30%) was the First visit. Most of the patient visited the pharmacy at evening 395 (64.6%). Most of patients 481 (83.5%) spent less than 11 min with the pharmacist (Table 1). The most pharmaceutical care services provided to patients were dispensing of prescribed medication 390 (70.8%), medication consultation 262 (47.5%), dispensing of non-medications, supplements 233 (42.3%) and dispensing of over the counter medications 229 (41.6%) (Table 2). The high scores of the pharmaceutical care services provide to the patients were in private's hospitals (3.71)

Table 1: Demographic responder qualifications information

	Response Count	Response Percent
Sex		
Female	457	74.07%
Male	160	25.93%
Answered question	617	
Skipped question	0	
Nationality		
Saudi	536	87.73%
Non-Saudi	75	12.27%
Answered question	611	
Skipped question	6	
Age		
<18	35	5.69%
18 - 29	277	45.04%
30 - 44	240	39.02%
45 - 59	60	9.76%
60+	3	0.49%
Answered question	615	
Skipped question	2	
Qualification of the responders	Response Count	Response Percent
Doctorate degree	10	1.63%
Master degree	32	5.22%
Bachelor Degree	395	64.44%
Diploma	46	7.50%
High school	95	15.50%
Intermediate School	29	4.73%
Primary School	5	0.82%
Not educated	1	0.16%
Answered question	613	
Skipped question	4	
Type of visit	Response Count	Response Percent
First visit	43	18.30%
Follow up	192	81.70%
Answered question	235	
Skipped question	2	
In the last 12 months, the number of times visited the pharmacy	Response Count	Response Percent
None	23	3.73%
1 time	40	6.49%
2	60	9.74%
3	56	9.09%
4	93	15.10%
5 to 9	122	19.81%
10 or more times	222	36.04%

Answered question	616	
Skipped question	1	
Time of Visiting the Pharmacy	Response Count	Response Percent
Morning	116	18.99%
Evening	395	64.65%
Night	100	16.37%
Answered question	611	
Skipped question	6	
The waiting time to get the medications	Response Count	Response Percent
< 5	293	50.87%
5-10	188	32.64%
11-15	53	9.20%
16-20	17	2.95%
21-25	4	0.69%
26-30	10	1.74%
31-35	1	0.17%
36-40	2	0.35%
41-45	3	0.52%
46-50	0	0.00%
51-55	1	0.17%
56-60	1	0.17%
More than >60	3	0.52%
Answered question	576	
Skipped question	41	

Table 2: The pharmaceutical care services provides to the patients

Answer Options	Response Count	Response Percent
Medication consultation	262	47.55%
Dispensing of prescribed medication	390	70.78%
Dispensing of over the counter medications	229	41.56%
Health information consultation	148	26.86%
Diseases consultations	116	21.05%
Dispensing of non-medications supplements	233	42.29%
Vaccines	23	4.17%
answered question		551
skipped question		66

Table3: Pharmaceutical Care services levels provides to the patients

Answer Options	Outstanding	Excellent	Neutral	Week	Very weak	Rating Average	Response Count
Pharmaceutical care services at MOH hospitals	77	183	253	57	27	3.38	597
Pharmaceutical care services at non-MOH governmental hospitals	53	199	275	35	24	3.38	586
Pharmaceutical care services at private hospitals	113	245	190	28	13	3.71	589
Pharmaceutical care services at MOH primary care centers	46	202	233	76	29	3.27	586
Pharmaceutical care services at privates primary care centers	59	205	250	41	24	3.40	579
Pharmaceutical care services at community pharmacies	78	250	202	27	10	3.63	567
answered question							601
skipped question							16

Table 4: Patient perception of pharmacy services; current and future experiences and challenges

No	current experience of Perception and challenges	Propriety scores	Current expectations of perception	Propriety scores	Opportunity scores	Future Perception	Propriety scores	Opportunity scores
1	Pharmacy crowding	5	More clarification of role of pharmacist in the society	5	4	More activities of pharmacy publication education	5	4
2	Long pharmacy waiting time	4	all medication should be available	5	5	Correction of pharmacy image to local society	4	4
3	Pharmacy waiting area only for male	5	More communication skills	5	5	Pharmacy home delivery especially to handicap patients	5	4
4	Medication labels missed	5	Implement patient counselling program	5	5	Expand pharmacy area	5	4
5	Patient privacy missed	5	Easy access to the pharmacy	5	5	Pharmacy location through social media	5	5
6	Some medications not available	5	Fast pharmacy facilities	4	4	Reduce medication price	5	4
7			More patient caring by pharmacist	5	5	Implementation of adverse drug reaction reporting for patients	5	5
8			The pharmacy open 24/7	5	4	Increase pharmacies at night duty	5	4
9			Advertise of MOH hotline drug information 937	5	4	Presenting of Cosmetic patient counseling	5	4
10			the pharmacy should have more than one pharmacist at the same time	5	4	Implement medication reconciliation program	5	4
11			Change Pharmacy design and furniture	5	4	Implement pharmacy hotline number	5	5
12			Update the medication packaging	4	3	Follow up pharmacy ethic applications	5	4
13			Special address code for pharmacy	4	4	Pharmacy valuable in the schools	5	4
14			More patient integrity	5	5			
			answered question			80		
			skipped question			537		

and community pharmacies (3.63) (Table 3). The most current experience of perception and challenges with high propriety scores were some pharmacy crowding, medication labels missed and patient privacy missed. The

most current expectations of perception with high propriety and opportunity scores were all medication should be available and implement patient counseling program. The most future perception suggestion with high pro-

priety and opportunity scores were published the Pharmacy location through social media and Implementation of adverse drug reaction reporting for patients (Table 4).

DISCUSSION

The general administration of pharmaceutical care at ministry of health offered several programs to improve pharmacy performance and services. The program direct to a patient, for instance, pain management program, national drug information center, anticoagulation services.^[16-18] Also, some pharmacy administration program involved the patient satisfaction and perception of pharmacy services.^[19,20] However, this the first study to explore the patient perception of pharmaceutical care services within challenges and development. The finding of the study showed that is the most pharmaceutical care services received by the patient was regular medications or over the counter medications and non-medications, supplements while medications or disease consultation. It resembles what reported by Merks P, *et al.*^[15] That is main most of the pharmacy services not implemented the full concept of pharmaceutical care. Also, the most inferior perception of the services was immunization and vaccines because still not yet approved by the Ministry of Health as pharmacy services through community pharmacies. It resembles what reported by Merks, P *et al.*^[15] The most patient perception level of pharmacy services was in the private sector either hospital or community pharmacies and privates primary care centers. That is maybe related to the comprehensive pharmacy services provided to the patients. While the lowest score of perception of pharmacy services at the governmental hospitals either hospital or primary care centers. That is due to not fully implemented of the pharmacy services and pharmaceuticals care concept. The patients explained the current experience with pharmacy services. The high scores of proprieties were the perception of the crowding of pharmacy, the medication's labels did not exist and the patient privacy missed at most the pharmacies and drugs not available most of the times. All those factors presented in reality at most of the pharmacies. Maybe the implementation of new initiatives of Saudi Managed Care Pharmacy is one the best solution for that.^[21] The patient expected to get all medications and implement the patient counseling program. All previous elements found in most of the private hospitals and for that is reasons, most of the patients gave the highest perception of pharmacy services provided

by them. The patient expected in the future perceptions with high scores of propriety and opportunities to improve the pharmacy services provided include; the distribution of pharmacy location with their address and services by using social media and application. The new suggestions from the patient in the future that is the pharmacist follow drug therapy and drug-related problems with complete documentation of them. The proposal is potential for implementations to prevent drug misadventures and void the unnecessary the economic burden on the healthcare system in the Kingdom of Saudi Arabia.


CONCLUSION

Patients' perception is a crucial tool to improve pharmaceutical care. Monitor implementation of the patient medication education system with private places, monitoring of drug-related problems will support the future vision of patient perception and attitude towards the pharmacist. However, more studies are required to discover further the real reasons behind the absence of pharmaceutical care services in community pharmacies and the best means of addressing this problem.

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KSA: Kingdom of Saudi Arabia; **MOH:** Ministry of Health; **USA:** United States of America; **CBAHI:** Saudi Central Board for Accreditation of Healthcare Institutions; **TPN:** Total Parenteral Nutrition.

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REFERENCES

1. Hepler CD, Strand LM. Opportunities and responsibilities in pharmaceutical care. *Am J Hosp Pharm.* 1990;47(3):533-43.
2. Alomi YA, Alghamdi SJ, Alattyh RA. Strategic plan of general administration of pharmaceutical care at ministry of health in Saudi Arabia 2012-2022. *J Pharm Pharm Scien.* 2015;1(3):1-8.
3. Al-Arif MN, AlDhawali A, Aldohyan M, Wajid S, Babelgaith SD. A survey on pharmacist opinion about pharmaceutical care in Saudi Arabia. *Asian J Pharm.* 2015;9(4):277-82.
4. Pedersen CA, Schneider PJ, Scheckelhoff DJ. ASHP national survey of pharmacy practice in hospital settings: prescribing and transcribing-2013. *Am J Heal Pharm.* 2014;71(11):924-42.
5. Pedersen CA, Schneider PJ, Scheckelhoff DJ. ASHP national survey of pharmacy practice in

- hospital settings: Monitoring and patient education-2015. *Am J Heal Pharm.* 2016;73(17):1307-30.
6. Alsultan MS, Mayet AY, Khurshid F, Al-Jedai AH. Hospital pharmacy practice in Saudi Arabia: drug monitoring and patient education in the Riyadh region. *Saudi Pharm J.* 2013;21(4):361-70.
7. Alsultan MS, Khurshid F, Mayet AY, Al-Jedai AH. Hospital pharmacy practice in Saudi Arabia: Dispensing and administration in the Riyadh region. *Saudi Pharm J.* 2012;20(4):307-15.
8. Ahmed Alomi Y, Jamaan Alghamdi S, Abdullah Alattyh R, Shorog E, Alshahran A, Alasmay S, et al. National Survey of Pharmacy Practice at MOH Hospitals in Saudi Arabia 2016-2017: Pharmacy Management and Resource. *J Pharm Pract Community Med.* 2018;4(1S):S1-S16.
9. Merks P, Świczekowski D, Jaguszewski MJ. Patients' perception of pharmaceutical services available in a community pharmacy among patients living in a rural area of the United Kingdom. *Pharm Pract.* 2016;14(3):774.
10. Khan MU, Khan AN, Ahmed FR, Feroz Z, Rizvi SA, Shah S, *et al.* Patients' opinion of pharmacists and their roles in health care system in Pakistan. *J Young Pharm.* 2013;5(3):90-4.
11. Oshima S, Senoo K, Negishi A, Akimoto H, Kutsuna N, Juni K, *et al.* Identification of the discrepancies between pharmacist and patient perception of the pharmacist's role as an advisor on drug therapy based on social science theory. *Biol Pharm Bull.* 2016;39(39):313-22.
12. The Joint Commission. Comprehensive Accreditation Manuals. Joint Commission Resources. Available from: <http://www.jcrinc.com/store/publications/manuals/>.
13. Medication Management (MM). In: National Hospital Standards. 2nd Edition. Saudi Central Board for Accreditation of Healthcare Institutions, 2015;194-211. Available from: <http://www.cbahi.gov.sa>.
14. Alomi YA, Kurdy L, Aljarad Z, Basudan H, Almekwar B, Almahmood S. Patient satisfaction of pharmaceutical care of primary care centers at ministry of health in Saudi Arabia. *J Pharm Pract Community Med.* 2016;2(3):79-87.
15. Merks P, Świczekowski D, Jaguszewski MJ. Patients' perception of pharmaceutical services available in a community pharmacy among patients living in a rural area of the United Kingdom. *Pharm Pract.* 2016;14(3):774.
16. Alomi YA. National pharmacy pain management program at ministry of health in Saudi Arabia. *J Pharmacol Clin Res.* 2017;3(2):001-7.
17. Alomi YA. National drug information center program at ministry of health in Saudi Arabia. *Adv Pharmacoepidemiol Drug Saf.* 2016;5(5):1-2.
18. Alomi YA. National pharmacy anticoagulation program at ministry of health in Saudi Arabia. *BAOJ Pharm Sci.* 2017;3(3):3-7.
19. Alomi YA. National Pharmacy Administration Programs at ministry of health in Saudi Arabia. *BAOJ Pharm Sci.* 2015;1(9).
20. Alomi YA. Patient satisfaction of pharmaceutical care system at ministry of health in Saudi Arabia. *BAOJ Pharm Sci.* 2016;2(1):19.
21. Alomi YA, Alghamdi SJ, Alattyh RA. Saudi Managed Care Pharmacy (SMCP): New initiative system of MOH prescriptions dispensed through community pharmacies. *J Pharm Pract Community Med.* 2017;3(3):145-53.