

Public Perceptions Concerning Community Pharmacy Services in Jouf Region, Kingdom of Saudi Arabia in Reference to COVID-19 Pandemic

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ABSTRACT

Aim/Background: The present study was aimed at investigating the public perceptions about extended services by community pharmacists in Jouf region of Saudi Arabia during COVID-19 pandemic. **Design:** Institutional based cross sectional prospective survey. The sample size was calculated by an online sample size calculator named Raosoft®. The calculated sample for this study was 945 with a 5% error margin, confidence interval of 95%, the population size fixed at 200000. **Study instrument:** A 34-item self-administered questionnaire developed by an in-depth literature review and approved by the subject experts (professor, associate professor, assistant professor and lecturer) after suggestions and modification in the questionnaire, pretested to a small sample of thirty participants. The reliability scale applied to determine the alpha value of pretested sample. **Results:** Majority of the participants 83.6% were females, the frequency (1-3 times) of visit is highest (52.4%) for the participants with the main reason for visiting a particular pharmacy is close location (52.3%). The participants had positive perceptions towards the role of the pharmacist regarding feeling comfortable asking advice from the pharmacist, getting comprehensive consultation, having sufficient discussion time, communication with the pharmacist, getting answers for their questions, medication labeling and information about medication interactions and side effects. However, the participants had negative attitudes towards the medications prices and the diagnostic services such as lab tests provided by the community pharmacists. Public are of the opinion that the pharmacists are well aware of the COVID-19 pandemic playing a good role in counselling about the COVID-19, without any change in their behavior in the current situation. **Conclusion:** The study showed that there was positive public perceptions about the role of the community pharmacists and the practices and services offered by them. The study recommended increasing the public awareness about the role of the community pharmacists and the range of the services offered in the community pharmacies.

Key words: Community pharmacists, Jouf city, Perceptions, COVID-19, Public, Services.

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INTRODUCTION

Pharmacy is the health profession that has the responsibility for ensuring the safe, effective and rationale use of medicines. As such it plays a vital role in the delivery of healthcare worldwide. There are large

differences in the practice of pharmacy between nations as well as within the nations. However these practices are becoming unified due to many reasons like the announcement of the role of pharmacist



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by WHO, change political scenario and the efforts made by the pharmacist in managing medicines and providing pharmacy service. Many studies have been done internationally for describe pharmacy practice, the role of pharmacist in the health system and the pharmacy education.¹⁻⁵

Some researchers investigated the perceptions, attitudes and views of public about the role of the community pharmacists. Hashmi *et al.* (2017) conducted a qualitative study that aimed at exploring the perceptions and attitudes of community pharmacists about the extended pharmacy services in Pakistan.⁶ In another study conducted by Okai *et al.* (2019), the purpose was to explore the perceptions and trends in the use of community pharmacies in Ghana but no such study has been reported from Saudi Arabia.⁷ This study was conducted in the Jouf region of Saudi Arabia to explore the perceptions and attitudes of public towards extended services of community pharmacies with respect to their gender, age and education during the COVID-19 pandemic.

MATERIALS AND METHODS

Study Design: Institutional based cross sectional prospective survey.

Study Duration: 2 months.

Study site: Online platform.

Study Population: This survey was conducted among the population of Jouf region of Kingdom of Saudi Arabia.

Sample Size: A convenient sampling technique was used to attain the sample size. The sample size was calculated by an online sample size calculator named Raosoft®. The calculated sample for this study was 950 with a 5% error margin, confidence interval of 95%, the population size was fixed at 200000.

Inclusion and Exclusion criteria: Participants above of 18 years of age agreeing to participate in the study were included. Participants who didn't agree to participate and below 18 years of age were excluded on the account of perceived less information on pharmacy services.

Study instrument

A 34-item self-administered questionnaire developed by an in-depth literature review and approved by the subject experts (professor, associate professor, assistant professor and lecturer) after suggestions and modification in the questionnaire, was pretested to a small sample of thirty participants. The reliability scale was applied to determine the alpha value of pretested sample. The Questionnaire had five questions on

demographic details of the participants (Section 1), six questions about public expectations about CPs services by pharmacists (Section 2), five questions about public perception about community pharmacist practice (Section 3), six questions about public's perceived barriers of approaching community pharmacists (Section 4), six questions on community pharmacist extended role (Section 5), section 6 consisting 6 questions with reference to COVID-19. All the sections of the questionnaire except section one were rated on an agreement scale, a type of Likert scale with statements "Agree", "Neutral" and "Disagree". Results are expressed as the percentage of response. Prior approval for the proposed study was taken from the local bioethics committee vide number 10-02-42, date: 01/01/2021.

Data Collection

All the investigators contacted the patient through convenient sampling technique across Jouf province of KSA. The participation in this study was voluntary, persons agreeing completed the survey and with guidance in this regard as needed. The Google survey questionnaire link was distributed through social media tools.

Data management: Data was collected online through Google forms, without the use of any hard items/printed materials and stored at three different places online (email, eDrive, USB) under the custody of the investigators. Following the data collection, all the responses were checked for accuracy and completeness. Data was shifted to MS Excel and subsequently cleaned. Finally, the spreadsheet file was converted to SPSS file for analysis. SPSS file was shared among investigators and preserved for ethical review whenever is required.

Statistical Analysis

Descriptive statistics was applied on the obtained data and the results were reported as frequency and percentages.

RESULTS

The purpose of this study was to investigate the Saudi Publics perceptions about the services by community pharmacist. A total of 1200 participants were recruited in the present study, out of which 1081 participated in the survey. A total of 945 response which were complete was considered for the study.

Demographic characteristics of the study participants are given in Table 1. Majority of the participants were females (87.1%), most of the participants were from the age group 18-29 years (58.3%), 64.6% participants

Table 1: Demographic Characteristics of the Study Sample.

Variable	Frequency	Percentage
Gender/Female	823	87.1
Male	122	12.9
Age		
18 – 29 years	551	58.3
30 – 50 years	334	35.3
More than 50 years	60	6.3
Number of visits to community pharmacy		
1-3	610	64.6
4-6	174	18.4
6-10	64	6.8
> 10	97	10.3
Reason for visiting a specific pharmacy	403	42.6
The close location		
Availability of medications	413	43.7
Knowledge of the pharmacist	113	12
Friendly pharmacist	16	1.7

visits 1-3 times a month to the pharmacy and the prime reason for visiting a particular pharmacy is close location (42.6%) and availability of medications (43.7%)

The perception of the public regarding pharmacists service are presented in Table 2, 83.6% of the participants strongly agree/agree that they are comfortable in taking advice from the pharmacists, 69.4 % strongly agree/agree that pharmacist provides medication counselling, 84.2% feel that pharmacist maintains their privacy, 86.8% feels that pharmacist provides enough time in discussing the problems. 81.7% agrees that pharmacist has enough knowledge and readily answers to the drug related queries, 62.6% strongly agree/agree that pharmacist takes the medication history, 69.2 %, 68.6% strongly agree/agree that pharmacist counsels about the disease, drug interaction/adverse effects of drugs. 85.4% strongly agree/agree that pharmacist checks the accuracy of dosing and medications where as 73% strongly agree/agree that pharmacist labels medication with dose and usage instruction. 58.8%, 46.6%, 76.8%, 45% strongly disagree/disagree that pharmacist lacks knowledge, busy, rude, availability of private counselling area respectively. 41.1% strongly agree/agree that pharmacy practice has turned into business point. 71.8%, 69.2%, 41.5 strongly agree/agree that pharmacist is a

drug information provider, engaged in public health promotional activities, performs diagnostic testing. 52.9% strongly disagree/disagree that pharmacist administers injectable drugs. 43.2% strongly agree/agree that pharmacist helps in monitoring and managing chronic conditions. Public are of the opinion that the pharmacists are well aware of the COVID-19 pandemic playing good role in counselling about the COVID-19, without any change in their behavior in the current situation.

DISCUSSION

Jouf is in the north of Saudi Arabia, with a population around half million, and the number of licensed pharmacist working are 259.⁸ There are very few report about the perception of public about the community pharmacy service in Saudi Arabia, and no report in particular from Jouf region.⁹

Most of the participants feels comfortable in taking advice from the pharmacist, and agree that pharmacist provides medication counselling and maintains privacy which is similar to the earlier reports.⁹

The participants have a strong positive perception towards the pharmacist's knowledge about drugs, in taking medication history, disease counselling, prescription checking, labelling which are in congruence to the earlier report from Kuwait and Saudi Arabia.^{10,11}

Regarding the perceived barriers like insufficient knowledge, expensive medication, lack of time and private area, rude behavior participants have negative perception which agrees with the earlier report of Kuwait and Saudi Arabia.^{10,11}

Most of the respondents feel that the pharmacist do not perform diagnostic testing, administer injectable drugs or helps in monitoring chronic conditions like asthma and hypertension which agrees to the earlier report from the Riyadh region.¹²

Public are of the opinion that the pharmacists are well aware of the COVID-19 pandemic playing a good role in counselling about the COVID-19, without any change in their behavior in the current situation which is similar to the earlier report from Saudi Arabia.¹⁰

CONCLUSION

The present study was aimed to explore the public perceptions about the extended services offered by the community pharmacies in Jouf city, Saudi Arabia during the COVID-19 pandemic. The study revealed that there were positive perceptions about the role of the community pharmacists, and their services offered.

Table 2: Perceptions towards services provided in the community pharmacies.

Question	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	N	%	N	%	N	%	N	%	N	%
Section 2										
You feel comfortable while taking advice from pharmacists	429	45.4	361	38.2	127	13.4	21	2.2	7	0.7
Pharmacist provides you thorough medication counselling and encourage you to ask questions	332	35.1	324	34.3	233	24.7	48	5.1	8	0.8
Pharmacist maintains the privacy of your prescription	464	49.1	332	35.1	130	13.8	18	1.9	1	0.1
Pharmacist gives you enough time to discuss your problem and listen you carefully when you approach him with a problem	446	47.2	374	39.6	101	10.7	19	2.0	5	0.5
Pharmacist has enough knowledge and always ready to answer your drug-related questions	397	42	375	39.7	145	15.3	26	2.8	2	0.2
Pharmacist takes medication history from you	297	31.4	295	31.2	262	27.7	71	7.5	20	2.1
Section 3										
Pharmacist counsels you about your disease	303	32.1	351	37.1	207	21.9	74	7.8	10	1.1
Pharmacist counsels you about potential drug interactions and adverse effects of medications and guides how to avoid them	326	34.5	322	34.1	176	18.6	96	10.2	25	2.6
Pharmacist is able to answer your drug-related questions.	345	36.5	347	36.7	175	18.5	67	7.1	11	1.2
Pharmacist checks your prescription for accuracy of dosing and medications	431	45.6	376	39.8	114	12.1	22	2.3	2	0.2
Pharmacist labels your medications with dose and use instructions	392	41.5	307	32.5	139	14.7	97	10.3	10	1.1
Section 4										
Pharmacist lacks sufficient knowledge	94	9.9	81	8.6	214	22.6	431	45.6	125	13.2
Drugs are expensive in the pharmacy	271	28.7	257	27.2	344	36.4	66	7.0	7	0.7
You find pharmacist busy during your visit	76	8	149	15.8	280	29.6	372	39.4	68	7.2
You find pharmacist is rude in providing any information or answer	58	6.1	64	6.8	97	10.3	780	50.8	246	26
Is there a private counselling area?	123	13	168	17.8	229	24.2	330	34.9	95	10.1
Pharmacy practice has turned to be a business point	187	19.8	201	21.3	294	31.1	214	22.6	49	5.2
Section 5										
Pharmacist is a drug information provider.	304	32.2	374	39.6	196	20.7	57	6	14	1.5
Pharmacist is engaged in public health promotional activities	281	29.7	373	39.5	238	25.2	45	4.8	8	0.8
Pharmacist performs diagnostic testing (blood pressure, blood glucose monitoring)	159	16.8	233	24.7	206	21.8	273	28.9	74	7.8
Pharmacist administers injectable drugs	86	9.1	149	15.8	211	22.3	387	41	112	11.9
Pharmacist helps in monitoring and managing chronic conditions (asthma, hypertension)	151	16	257	27.2	253	26.8	227	24	57	6
Section 6										
Pharmacist helps the community by counselling about COVID-19 pandemic?	209	22.1	416	44	207	21.9	57	6	58	6.1
Pharmacist is aware about the effects of immunity-enhancing supplement on COVID-19 pandemic.	234	24.8	345	36.5	313	33.1	59	6.2	61	6.5
Purchase of medicines has increased during COVID-19 pandemic.	255	27	319	33.8	307	32.5	22	2.3	42	4.4
Pharmacist's behavior to customer has changed during COVID-19 pandemic.	104	11	140	14.8	309	32.7	202	21.4	190	20.1
Pharmacist is well aware of the guidelines to be adopted in the current pandemic situation.	303	32.1	389	41.2	246	26	30	3.2	59	6.2
Pharmacist is maintaining the inventory of necessary products in the current pandemic.	208	22	240	25.4	414	43.8	39	4.1	43	4.5

However there are negative perceptions about the medications' prices in the community pharmacies. The study recommends increasing the public awareness about the role of the community pharmacists and the range of the services offered in the community pharmacies. In addition, the study recommends implementing further studies that include different settings and larger sample size with the adoption of different valid and reliable data collection tools.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ABBREVIATIONS

WHO: World Health Organization, **CPs:** Community Pharmacies.

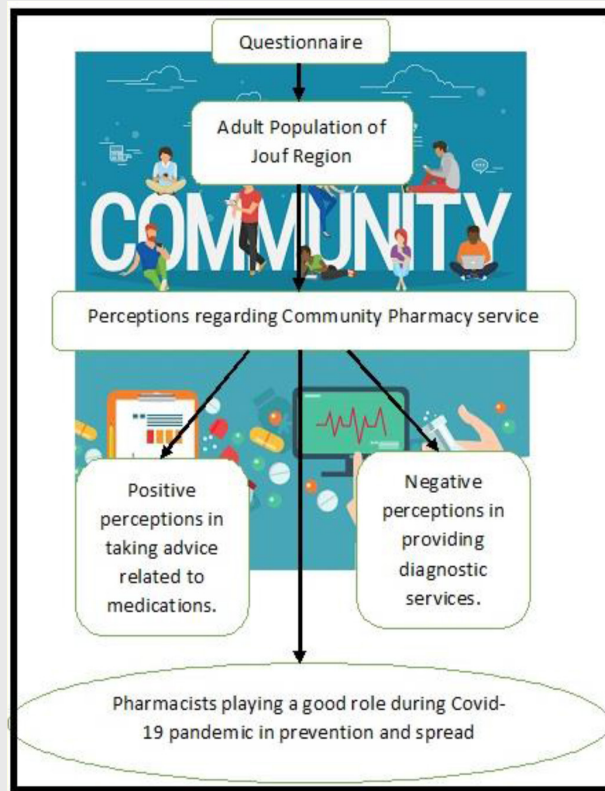
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SUMMARY

The cross sectional prospective survey was undertaken to reveal the public perceptions about extended services by community pharmacists in Jouf region of Saudi Arabia during COVID-19 pandemic. A 34-item self-administered questionnaire was responded by 945 adult participants. Majority of the participants 83.6% were females, the frequency (1-3 times) of visit is highest (52.4%) for the participants with the main reason for visiting a particular pharmacy is close location (52.3%). The participants had positive perceptions towards the role of the pharmacist regarding feeling comfortable asking advice from the pharmacist, getting comprehensive consultation, having sufficient discussion time, communication with the pharmacist, getting answers for their questions, medication labeling and information about medication interactions and side effects. However, the participants had negative attitudes towards the medications prices and the diagnostic services by the community pharmacists. Public are of the opinion that the pharmacists are well aware of the COVID-19 pandemic playing a good role in counselling about the COVID-19, without any change in their behavior in the current situation. The study recommended increasing the public awareness about the role of the community pharmacists and their services.

PICTORIAL ABSTRACT



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