

Short Communication

Pharmacists' perspectives on providing the COVID-19 vaccine in community pharmacies

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Abstract

Objectives The objective of this study was to explore community pharmacists' perspectives on administering COVID-19 vaccine in community pharmacies in Jordan.

Methods Purposeful sampling was used to identify a list of 100 community pharmacies which were approached to participate in the study. Twenty-three interviews were needed to reach data saturation. In-depth interviews were conducted, recorded, transcribed and analysed using NVivo 11 software. Interviews followed a previously prepared and validated 12-item interview guide. The interview guide discussed pharmacists' perspectives on providing the COVID-19 vaccine in community pharmacies.

Key findings The three overarching themes which described the participating pharmacists' views towards administering the COVID-19 vaccine in community pharmacies were advantage, support and barriers. The reported advantages included expediting the COVID-19 vaccination process, convince people to take the vaccine, increased patient accessibility to vaccines and aiding the health-care system in the vaccination process. Respondents indicated that they would be more willing to administer the COVID-19 vaccine if they received the needed support from the Ministry of Health and the Pharmacists Association. Furthermore, from the respondents' perspectives, the main barriers to this practice were having no confidence in the vaccine, risk of adverse effects and lack of training and expertise.

Conclusions Respondents reported a positive attitude towards administering the COVID-19 vaccine in community pharmacies. Respondents highlighted that they could help fighting the pandemic through administering the vaccine and expedite the vaccination process.

Keywords: health services research; international; pharmaceutical HSR; qualitative research

Introduction

Since the outset of the COVID-19 pandemic, pharmacists were reported to have an active role in various aspects.^[1] Internationally, pharmacists were reported to help in medication supply and delivery, increase public's awareness about the disease, help in testing for COVID-19 and recently administer the vaccine.^[2] In Jordan, pharmacists have only been recently licensed to administer the influenza vaccine.^[3] Internationally many pharmacists are involved in the COVID-19 vaccination which is helping in distributing and allocating the vaccine and in achieving mass immunisation.^[4] To expedite achieving herd immunity the vaccine should be administered in every possible location, hence including community pharmacies is crucial.

The present study aims to explore community pharmacists' perspectives on administering COVID-19 vaccine in community pharmacies in Jordan.

Methods

Qualitative interviews were conducted. Purposive sampling was employed whereby a list of 100 community pharmacies were randomly obtained from a list of pharmacies accredited as experiential training sites by the Faculty of Pharmacy at the Jordan University of Science and Technology. Identified pharmacists were contacted by phone or email and invited to take part in the study. Respondents were informed that their responses would be anonymised, and audio recorded. Respondents were offered to do the interview over the phone or over audio visual applications of their choice. All respondents signed an electronic consent to take part in this study and agreed to record the interview at the time of the invitation.

A semi-structured interview guide was developed. Face and content validation was carried out by experts in qualitative and pharmacy research. The guide covered aspects related to administering the COVID-19 vaccine in community pharmacies. Each session lasted between 20–45 min.

Recorded interviews were transcribed verbatim, and de-identified. Results along with audio recordings were then imported into QSR International's NVivo 11 Software for comparison and analysis. Thematic analysis was performed on the transcripts by two independent researchers. The research protocol was reviewed and approved by the IRB at the King Abdulla University Hospital (202100006).

Results

A total of 100 community pharmacists were approached to take part in the study, and 23 (8 males, 15 females) participated in semi-structured interviews during January 2021, after which the researchers were confident that data saturation had been reached. The remaining pharmacists were informed that the study has concluded, and their participation is not required at the mean time. Median interview duration was 28.15 min (9.15 min minimum, 45.13 min maximum). All participants were community pharmacists working in different Jordanian cities. Respondents had a mean age of 38.5 years and a mean experience of 12.3 years. [Table 1](#) displays respondents' individual characteristics.

Advantage

According to respondents, administering the COVID-19 vaccination in community pharmacies had many advantages. Those included expediting the COVID-19 vaccination process as currently the process is still slow, and the vaccinated population does not exceed 30 000 person of a 10 million population. It was thought that providing the vaccine in community pharmacies would expedite to vaccination process and help increase the number of vaccinated persons promptly. Another advantage reported by respondents was helping in convincing people to take the vaccine as many people still doubt the benefits of the vaccine. Respondents indicated that they community pharmacists are trusted healthcare professionals, and that they

Table 1 Characteristics of pharmacists taking part in the study

Code	Age	Gender	Highest degree	Experience as a community pharmacist	Willingness to administer the COVID-19 vaccine
PH1	39	Male	PharmD	10 years	Yes
PH2	37	Female	PharmD	9 years	Yes
PH3	31	Female	PharmD	5 years	Yes
PH4	27	Female	BPharm	3 years	Yes
PH5	48	Male	BPharm	19 years	Yes
PH6	29	Female	PharmD	4 years	Yes
PH7	57	Male	MSc	26 years	No
PH8	26	Male	PharmD	2 years	No
PH9	35	Female	BPharm	7 years	Yes
PH10	59	Male	MSc	22 years	Yes
PH11	50	Female	BPharm	17 years	No
PH12	43	Female	BPharm	13 years	Yes
PH13	29	Female	PharmD	2 years	Yes
PH14	33	Female	MSc	4 years	Yes
PH15	38	Male	BPharm	12 years	Yes
PH16	46	Female	MSc	17 years	Yes
PH17	30	Female	BPharm	11 years	Yes
PH18	36	Female	BPharm	12 years	Yes
PH19	27	Female	PharmD	9 years	Yes
PH20	61	Male	BPharm	35 years	No
PH21	35	Male	BPharm	12 years	Yes
PH22	42	Female	BPharm	21 years	Yes
PH23	28	Female	MSc	10 years	Yes

could increase the public's awareness regarding the benefits of the vaccine and its effect of returning to normal life after the pandemic. Furthermore, respondents thought that administering the vaccine in community pharmacies would increase patients' accessibility to it and make it available for a wider and larger population. and aiding the healthcare system in the vaccination process. A list of emerging themes and selected quotes are present in [Table 2](#).

Support

Respondents indicated that they would be more willing to administer the COVID-19 vaccine if they received the needed support from the Ministry of Health and the Pharmacists Association. Respondents added that the ministry of health should allow pharmacists to administer the vaccine in community pharmacies and help in increasing the public's awareness of the role of the pharmacist in administering

Table 2 Themes and subthemes emerging from the study

Aspect discussed	Emerging themes	Sample quotes
Advantage	Expediting the COVID-19 vaccination process	"We have a role to play in building the communities immunity to Corononavirus, this should be done as soon as possible" PH19 "to be honest it's a great idea, everyone can be vaccinated sooner" PH23 "... and then we can complete vaccinating all the population within a couple of months..." PH09
	Convince people to take the vaccine	"when people say that pharmacists are offering the vaccine it could convince them to take it" PH22 "we can help in spreading information and understanding about the benefits of the vaccine" PH21 "it will give us the chance to talk with customers about the vaccine and educate them" PH02
	Increased patient accessibility to vaccines	"All the population will be able to get the vaccine and waiting times will be reduced" PH06 "Pharmacists are accessible compared to vaccination centers and hospitals, everyone will have access to the vaccine with less risk" PH17 "people come to pharmacies on daily basis, we can easily enroll them in the vaccination program" PH04
	Aiding the healthcare system in the vaccination process	"we can aid the Ministry of Health in this, there are many pharmacists that can contribute to this effort" PH12 "if you ask me, people prefer to get health advice from the pharmacist, it accessible and does not scare them like hospitals and clinics. I'll be happy to administer the vaccine in my pharmacy" PH05 "The public health sector has been under tremendous pressure due to the COVID pandemic, we can ease that pressure by helping in testing, patient follow up, and vaccination" PH14
Support	Support from the Ministry of Health and the Pharmacists Association	"To initiate a corona vaccination program in community pharmacies, you will need the support of the Ministry (Ministry of Health). They need to adopt the idea: PH21 "The Pharmacist Association should initiate this and get the support of the Ministry of Health before we can vaccinate people" PH4 "This needs administrative support and approval, if its meant to happen the Ministry of Health should be convinced" PH 19
Barriers	No confidence in the vaccine	"To be honest I have no confidence in the vaccine, and I won't be part of giving it to people" PH20 "It will be very hard; people do not have confidence in the vaccine" PH11 "I personally don't believe in the efficacy of the vaccine, how will I convince people?" PH07
	Risk of adverse effects	"I'm afraid that a patient could develop side effects of have an immediate allergy, how can we manage this in the pharmacy?" PH08 "...this need a lot of thinking, are we trained enough to deal with any unexpected problem.... Allergy for instance?" PH20
	lack of training and expertise	"I am happy to give the vaccine to people, but I'm afraid I don't have the skill to do so, ill be happy to host a nurse in my pharmacy" PH16 "I'm not sure I have the required skill, I need to be trained and then I maybe can start administering the vaccine" PH12 "We just got the approval to administer the flue shot, I believe this should be gradual" PH02

the vaccine. Respondents indicated the ministry of health should supply them with the needed logistics to assure the safety and stability of the vaccine and allow them to be connected to the national vaccines database to offer this service. On the other hand, respondents thought that the Pharmacists' Association should have an active role in the vaccination process and lead the initiative to support the public health sector by offering COVID-19 vaccines in community pharmacies.

Barriers

Barriers to the COVID-19 vaccination in community pharmacies included having no confidence in the vaccine. It was pointed out that if pharmacists doubted the efficacy and safety of the vaccine how could they administer it to people. This along with lack of confidence on the side of the public as well. Furthermore, many respondents were concerned as they thought they did not have enough practice and expertise in vaccine administration and in dealing with any adverse event or allergy because of the vaccine.

Discussion

This study explored perceptions of community pharmacies regarding administering the COVID-19 vaccine in community pharmacies in Jordan. According to the available literature this could be the first study to address this issue.

Pharmacists in Jordan have expressed willingness to participate in the national efforts to face the COVID-19 pandemic since its beginning.^[2, 5] Hence, it comes as no surprise that pharmacists expressed willingness to participate in administering the COVID-19 Vaccine in Jordan. This is important in achieving the ASHP principles for COVID-19 vaccine: distribution, allocation and mass immunisation^[4] leading to achieving herd immunity, hindering the disease spread and retaining normal life again.^[6]

In the present study pharmacists defined themselves as educators who could not only administer the vaccine, but also raise the public's awareness regarding its importance. Pharmacists have been reported to play an important role in educating the public since the outset of the pandemic and their role is very important taking the negative attitudes toward the COVID-19 vaccination in Jordan.^[7]

Many barriers were reported by respondents to this study. Similar concerns were reported internationally,^[8] however most importantly collaborative efforts must be place to train pharmacists to administer the vaccine and deal with any expended negative consequences.^[9]

Conclusions

Respondents reported a positive attitude towards administering the COVID vaccine in community pharmacies. Respondents highlighted that they could help fighting the pandemic through administering the vaccine and expedite the vaccination process.

Author contributions

T.L.M. deigned the study and wrote the manuscript, A.S.J. carried out the interviews and transcribed them, R.K.A.F. carried out thematic analysis, M.B.N. carried out thematic analysis, and S.A.M. reviewed the transcription and proofread the manuscript.

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Conflict of Interest

None declared.

Data availability

The data described in this article will be available upon request.

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