

Safety Practices in Community Pharmacy during COVID-19 Pandemic in Jordan

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ABSTRACT

Community pharmacies play a significant role in providing medicines, vaccines, consultations, and other important health services to the public. Community pharmacies continued to provide their services during the COVID-19 pandemic in most countries around the world, and this was the case in Jordan. During the COVID-19 pandemic, the pharmacy staff needs to avoid the risk of exposure to the virus causing COVID-19 along with reducing the risk for customers. This paper summarizes the safety practices of most community pharmacies in Jordan during the COVID-19 pandemic, to protect staff and customers from the risk of exposure to COVID-19 infection. Data were collected in two folds. First, a survey was distributed online through social media targeting those pharmacists working in community pharmacies. Second, face-to-face interviews were conducted with the staff and owners of pharmacies in Jordan, asking about the procedures followed to enhance the safety practices of pharmacists. Analyzing responses revealed that since the start of the pandemic, about 94% of pharmacists were using personal protective equipment, 88% of pharmacies were frequently sterilizing the pharmacy and the main door handle, and 82% of pharmacies were providing medical masks, gloves, and alcohol at the entrance.

Keywords: Community pharmacy; COVID-19; pharmacies; infection; safety considerations; Jordan.

1. INTRODUCTION

A novel coronavirus disease was identified in Wuhan, China in late December 2019, which was responsible for the new cases of pneumonia [1], [2]. This disease has spread quickly around the world [3], [4]. Implications said that the virus was transmitted from bats after a mutation in the spike glycoprotein and could infect humans [3]. This virus caused a disease that was named recently as coronavirus disease 2019 (COVID-19) [4]. Since December 2019, this highly contagious disease has been spreading rapidly around the world and increasing the number of cases and deaths [5]. The World

Health Organization (WHO) has declared COVID-19 a global pandemic as most countries have registered COVID-19 cases.

COVID-19 is a highly contagious disease and is believed to be transmitted mainly by respiratory droplets [5]. The center for disease control and prevention has published some considerations for pharmacies during the COVID-19 pandemic, to reduce the risk of staff exposure to the virus along with reducing the risk for customers [14]. In addition, the WHO recommends the use of respiratory protection by using personal protective equipment (PPE). The PPE includes the use of gloves, medical masks, face shields or goggles, and gowns [15]. In specific cases, the WHO recommends the use of respirators of N95 or FFP2 standard or equivalent [15].

The COVID-19 pandemic had challenged all of the

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healthcare workforces by adding new responsibilities and roles to practitioners [12]. Pharmacists were not excluded in all countries around the world. Suddenly and with short notice, pharmacists around the world were expected to treat, immunize, test, and educate patients, within an evolving-fuzzy and uncertain clinical, health policy environment, and service delivery [12]. Pharmacists and other staff in the community pharmacy are among the first-line health care workers who might be exposed to the novel COVID-19. They have performed important responsibilities and roles to mitigate the adverse impact of COVID-19 and reduce its effects on patients [13].

Staff working in health organizations including pharmacists, nurses, physicians, and others must consider the instruction of the WHO in dealing with COVID-19 and controlling the widespread panic associated. In addition, those medical and all other medical-related students who are performing their practice in hospitals must be aware of the COVID-19 challenge to maintain a high level of safety. In Mexico, the fourth-year medical students showed a positive perspective toward a course related to patient safety and the quality of healthcare [18].

The aim of this paper is to discuss the precautions and safety considerations followed by community pharmacies in Jordan to protect staff and customers from the risk of COVID-19. Face-to-face interviews with pharmacist were conducted along with a survey was distributed through social media and targeted those pharmacist working in the community pharmacy in Jordan.

2. METHODS

Data for this paper were collected through two methods. First, a survey that was distributed online through social media targeted those pharmacists working in community pharmacy. The survey collected demographic data about participants and the implemented procedures in pharmacy to protect the staff and customers from COVID-19. Second, a face to face interviews were conducted with the staff and owners of several pharmacies in Jordan.

The objective of considering these data collection

methods was to find the pharmacy's adaptation to the COVID-19 in Jordan, to protect their staff and customers from the COVID-19 risk. Several questions were asked to pharmacies' staff and owners regarding their procedures in protecting staff and customers. These questions were related to the community pharmacy itself, customers, staff, and delivery vehicle drivers who are in charge of delivering medications.

3. RESULTS AND DISCUSSION

3.1 Part 1: The Face to Face Interview

Many pharmacists who were working in community pharmacy along with pharmacy owners were interviewed. The objective was to ask about the procedures being followed to minimize the COVID-19 risk to staff and customers. The considerations being followed were related to the store, staff, customers, and delivery vehicles. The following subsections provide more details.

3.1.1 The Pharmacy-related Considerations

Several strategies have been considered by the community pharmacy to avoid direct contact between customers and staff, for reducing the risk of having COVID-19. Since COVID-19 is transmitted mainly by respiratory droplets from patients to surfaces and objects, at the early stages of the pandemic, the community pharmacy performed the following to reduce the risk of COVID-19.

- (1) Having a counter of 0.9 meter of minimum width in the pharmacy divides the pharmacy into an inside area for staff and an outside area for customers. This counter was used in most pharmacies.
- (2) Establishing a single line in front of the counter for the waiting customers. This was done by drawing marks/signs on the floor, either with paint, colored plaster, sticker, etc. The idea is to ensure a two-meter social distance between customers in line. For the customer at the front line, the distance between the counter and the customer's feet must be at least one meter. This ensured a minimum distance of 1.9 meter between staff and customer.
- (3) At the entrance of the pharmacy, pharmacies must

provide a free hand sanitizer containing at least 60% alcohol for customer use.

- (4) In the staff area, hand sanitizer and medical alcohol of at least 76% concentration must be provided in many places that are easily accessed by staff, i.e. beside the cashier, top of the counter, and other places. Pharmacy staff must have sufficient and easy access to water and soap as well.
- (5) Installing a section of transparent plastic/ glass from the front-top of the splitting counter up to the pharmacy ceiling to shield against droplets from coughs and sneezes. A small window was designed at the barrier bottom for sharing items between staff and customers.
- (6) Discontinuing the customer seating area and any magazines or commercial things in that area or the customer area.
- (7) Cleaning the community pharmacy floor several times a day, using water and chlorine products. This should be done by making sure no customers are in the community pharmacy.
- (8) Spray the shelves with disinfectant or alcohol several times a day. This included the door and its handle if it was not an auto-door. The checkout and the cashier area must be sprayed as well.
- (9) Cleaning the shelves daily using disinfectant materials and wipes, in addition, to cleaning all available surfaces that could be touched by customers.
- (10) Isolating a specific area in the pharmacy that was relatively far away from staff and customers, for those customers with respiratory symptoms.
- (11) Stopping some of the fast-medical tests that used to be done in pharmacies such as diabetes and blood pressure tests.
- (12) Hanging a large sign of the pharmacy phone number and publish this number on the pharmacy website, for encouraging customers to send their prescriptions to pharmacies or call the pharmacy to avoid paper-sharing between customers and staff.
- (13) Disinfecting the plastic shield between staff and

customers frequently.

- (14) After licensing the COVID-19 vaccination by the American Food and Drug Administration (FDA), pharmacists were given priority with other medical staff to get the COVID-19 vaccination, as they are in the first line of dealing with COVID-19 patients.

3.1.2 The Customers-related Considerations

Customers must be aware of the risk of COVID-19. The physical contact between customers and/or staff was set to a minimum. It was recommended that all customers in pharmacies use PPE, especially medical masks and gloves. Social distances of two-meter were considered between customers and staff. Customers should not touch any surface or object unless they need to do so with care and after using the hand sensitizer. The following were the used guidelines in the Jordanian community pharmacy to avoid contagious COVID-19.

- (1) Using large outdoor signs requesting customers to send the prescriptions to the pharmacy staff through some smartphone applications or by calling the pharmacy, and asking them to deliver the order home.
- (2) Add large signs to assure that customers must be in line to maintain a social distance, by standing on the specific marks on the floor and they have to use the hand sanitizer located at the entrance. Some reminders from the pharmacy staff would be helpful if needed.
- (3) Using signs to ask customers who have respiratory symptoms to wait in the isolated area specified for them. Staff should keep reminding customers from time to time of this.
- (4) Add large signs inside the pharmacy to remind customers to not touch shelves for their protection, objects, or products, and if they did, they had to sanitize their hands. Staff should remind customers frequently.
- (5) Limiting the number of customers inside the community pharmacy to prevent crowding at the checkout area.

3.1.3 The Staff-related Considerations

It is very important to staff in community pharmacies to not be infected, as this will be harmful to the

pharmacists themselves, their colleagues, and families. This was also harmful to the business, as in Jordan, and especially before approving the COVID-19 vaccines, if one of the staff was infected by COVID-19, the business was closed for 14 days. Pharmacists must use PPE including gloves, medical masks, goggles or face shields, gowns, and head caps. They must wash their hands with soap and water for a minimum of 20 seconds very frequently during the shift. They must use hand sanitizer or alcohol at least every time they touch things in the pharmacy, prescriptions, bills, or phones. The following were some guidelines that are followed in Jordanian community pharmacies.

(1) Using the PPE mentioned in the previous paragraph for personal safety.

(2) Stayed away from the customer for at least two-meter to avoid any possibility of spreading droplets through coughing or sneezing, or even talking. Stayed always at the inside counter area that was isolated by the transparent plastic sheet.

(3) Use hand sanitizer frequently after dealing with each customer especially when touching objects, currency, bills, or customer cards such as insurance and credit/debit cards.

(4) Encouraging customers to send prescriptions or needs to the pharmacy using the announced smartphone applications, which must be shown on a large sign outdoors the pharmacy or the pharmacy's website. In addition, encourages customers to call and order the medications by calling the community pharmacy and to be delivered home for free.

(5) Convince customers not to hand the insurance, debit, or credit cards to the pharmacy staff, instead, customers are encouraged to scan cards and send the image to the pharmacy email or mobile applications. For customer confidence, this image could be deleted from pharmacy phone after service in front of the customer.

(6) Gently instructing customers to be in line on the specified floor marks for standing, and for those with respiratory symptoms to stay in the specified isolation area

in the pharmacy that is assigned to them.

3.1.4 The Delivery Considerations

Before the COVID-19 pandemic, medicine delivery was not permitted in Jordan by law for many reasons including but not limited to protecting the owners of single pharmacies and not allowing pharmacy chains to monopolize the market. During the COVID-19 pandemic, pharmacies in Jordan were permitted to deliver medicine under specific conditions to reduce crowdedness in pharmacies and to be in line with the lockdown strategy of the Jordanian government, to avoid the pandemic risks for people. For delivering medicines, the following were some considerations that pharmacies used for deliveries.

(1) The delivery vehicle must be sanitized on each delivery trip using suitable disinfectant and/or alcohol.

(2) The driver, who must be a pharmacist, must use all the PPE including face masks, gloves, goggles, gowns, and head caps. In addition, the driver must use sanitizer or alcohol very frequently.

(3) It is recommended that the driver does not get off the vehicle upon arriving at the delivery address, and the customer picks the order from the passenger front window. This enhances the safety of the driver.

(4) The vehicle driver, should not enter the community pharmacy, however, the driver must receive the orders with their information outside the pharmacy and the driver should not at all enter the staff area after delivering the first order.

3.2 Part 2: The Online Survey

An online survey was distributed through social media and targeted those pharmacists who are working in community pharmacy in Jordan, and especially those who used to practice and perform their jobs during the COVID-19 pandemic. The Survey collection time was two weeks during the initial stage of the COVID-19 Pandemic. A total of 170 responses were received. The survey included two main parts, the demographic parts and the part that focused on the procedures that were implemented in the community pharmacy to protect the staff and customers. A total of 17 pharmacies participated in this

survey by asking their staff to participate. The following sections describe the results obtained.

3.2.1 Results of the Online Survey

According to the responses received for the online survey, 70.6% of responses were for male pharmacists and 29.4% were for females. Based on the participants' age, 41.2% were between 20-29 years, 35.3% were between 30-39 years, and 23.5% were between 40-49 years. Based on the pharmacy educational certification, 88.2% were holding bachelor's in pharmacy or pharmacy doctor degrees, and the rest were holding diplomas in pharmacy.

About 65% of participants were pharmacists working in community pharmacies and 35.3% were pharmacies owning their personal pharmacies.

Table 1 shows the percentage of the considered procedures of the community pharmacy to protect staff from the risk of infection by COVID-19. As shown in Table 1, 94.1% of pharmacies were using PPE. About 88% of them were frequently sterilizing the pharmacy area and the door handle. In addition, about 82% were providing medical masks, gloves, and alcohol at the entrance. More details are shown in Table 1.

Table 1. The considered procedures percentages of community pharmacies to protect staff against COVID-19.

The Implemented Procedure	Participants (%)
Using PPE	94.1
Installing a section of transparent plastic/ glass in front of the counter	52.9
Establishing a line in front of the counter for the waiting customers and adding marks of 1.5-2 m apart	64.7
Isolating a specific area in the pharmacy for customers with respiratory symptoms	17.6
Sterilizing the pharmacy frequently	88.2
Sterilizing the pharmacy door handle frequently	88.2
Stopping blood pressure measurement for patients	58.8
Stopping carrying out a sugar test in the pharmacy	52.9
Discontinuing the customer seating area	41.2
Asking patients to disclose if there is any symptom of corona	35.3
Providing alcohol, face masks, and gloves at the pharmacy entrance	82.4

4. Conclusions

This paper summarized the different procedures and practices that were considered in the community pharmacy in Jordan, to prevent the risk of the highly contagious COVID-19 for staff and customers. A sample of the community pharmacy was selected to perform a face-to-face interview in Jordan. In addition, an online survey was distributed through social media to collect more data about the practices being considered in the community pharmacy, to protect staff and customers from contagious COVID-19.

The main findings of the online survey were that 94.1%

of pharmacists and other staff in pharmacies were using the PPE; about 88% of pharmacies were frequently sterilizing the pharmacy and the door handle. In addition, about 82% were providing medical masks, gloves, and alcohol at the entrance.

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Conflict of Interest Statement

No potential conflict of interest was reported by the author(s).

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ممارسات السلامة في صيدلية المجتمع أثناء جائحة كورونا في الأردن

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ملخص

تلعب صيدلية المجتمع دورًا مهمًا في توفير الأدوية واللقاحات والاستشارات والخدمات الصحية الهامة الأخرى للعملاء. وخلال جائحة كورونا، واصلت صيدليات المجتمع تقديم خدماتها في معظم البلدان حول العالم، ومنها الأردن. ويحتاج طاقم الصيدلية وكذلك عملائها إلى تجنب خطر التعرض للفيروس المسبب لمرض كوفيد-19 وتلخص هذه الورقة ممارسات السلامة في معظم صيدليات المجتمع في الأردن خلال جائحة كورونا، لحماية موظفيها وعملائها من خطر التعرض لعدوى الإصابة بفيروس كورونا. وقد تم جمع بيانات الدراسة في جزأين. أولاً، تم توزيع استطلاع عبر الإنترنت من خلال وسائل التواصل الاجتماعي استهدف الصيادلة العاملين في صيدليات المجتمع. ثانيًا، أجريت مقابلات وجهاً لوجه مع موظفي وأصحاب الصيدليات في الأردن، للاستفسار عن الإجراءات المتبعة لتعزيز ممارسات السلامة لدى الصيادلة. وأظهرت النتائج بأنه منذ بداية الوباء استخدم حوالي 94% من الصيادلة معدات الوقاية الشخصية، و88% من الصيدليات كانت تعقم الصيدلية ومقبض الباب الرئيسي بشكل متكرر، وايضاً 82% من الصيدليات قدمت الأقنعة الطبية والقفازات و الكحول للعملاء عند المدخل.

الكلمات الدالة: صيدلية المجتمع؛ كوفيد-19؛ الصيدليات؛ عدوى؛ اعتبارات السلامة؛ الأردن.

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