



The Roles of Pharmacists in Responding to Public Health Emergencies: A Case of COVID-19

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Abstract

Emergencies are a significant menace to health services. The coronavirus disease 2019 (COVID-19) is one such emergency that took the world unaware and demanded more concentration from health-care providers, including pharmacists. To keep the pandemic at bay, pharmacists had to work on the frontline and to large extent, they still work alongside other healthcare professionals leveraging on the lessons learnt from the pandemic. The intent of this study was to present a general survey of pharmacists' role in responding to public health emergencies, some challenges faced and some strategies that have been formulated by which they can perform these roles correctly. The study was carried out by searching databases such as the World Health Organization, Yale Medicine, NCBI, CDC, Google Scholar, Research gate, WebMD, and PubMed. It was discovered that pharmacists are now greatly involved in COVID-19 vaccine administration, COVID-19 testing, and sensitization.

Keywords: Frontline, Pharmacist, COVID-19, Pandemic, Emergencies

1. Context

Pharmacists are healthcare professionals whose practice revolves around the right way to use, preserve, store, and provide medications. They guide on the use of medications, fill prescriptions issued by doctors and other healthcare professionals and educate patients on any potential adverse effects of the drugs they take. Pharmacists also commit to research and testing of new drugs. Areas of practice include pharmacies, universities, medical clinics, government institutions, and hospitals (1).

2. The COVID-19 Pandemic

SARS-CoV-2 is the organism implicated in the infectious disease, COVID-19 (The coronavirus disease 2019) that mainly affects the respiratory system as acute respiratory distress syndrome (ARDS) and interstitial pneumonia. Even though the lungs are targeted first by the infection,

the stockpile of research demonstrates that it's possible for the virus to spread to various organs, involving the gut, blood vessels, brain, heart, and kidneys. An interdisciplinary is then critical for assessment and the monitoring of patients with the disease (2).

The world was not ready for the pandemic took and the healthcare system had to find a way to adjust. In December 2019, the new strain of coronavirus was discovered in China, and it caused an emergency in the health sector of global concern on January 30, 2020 (3). The roles of Pharmacists keep expanding and evolving therefore it is necessary for Pharmacists to work together with other healthcare providers to advance the efficiency and quality of care by leveraging on the value of team care (4). Pharmacists should also be ready to support the response arrangements and the domestic healthcare emergency preparedness as they play an essential part in achieving the management of the outbreak of the corona virus disease (3).

3. Advances Made

For several years, pharmacy schools have prepared their students for broadened professional roles in healthcare systems, community pharmacies, and primary healthcare facilities. Healthcare transformative efforts have hastened these transitions resulting in a system that favours new, innovative pharmacy practices and roles that can add tremendous value to the provision of cutting-edge medication therapy management (4).

On the 19th of March 2020, the international pharmaceutical federation (FIP) published recommendations to elucidate the necessary information on coronavirus for pharmacists and the pharmacy workforce, furthermore, the duties or responsibilities of both hospital and community 'pharmacists in the management of this pandemic was stipulated. As FIP recommended, "community pharmacies in either countries affected or unaffected by an outbreak are often the first point of contact with the healthcare system for those with health-related concerns or simply in need of information and reliable advice". Consequently, it is expedient for pharmacists around the world to explore ways of taking control of their traditional and newly emergent roles during the COVID-19 outbreak (3).

Pharmacists around the world provided services amidst the pandemic, including attending to patients, and reducing the number of patients that visit the healthcare facilities including hospitals, general practitioners' practices, and TRIAGE services. Pharmacists also worked to provide deliveries at home, as well as handle the growing patient numbers coming to pharmacies with the other ailments (5).

Pharmacists in Pakistan and the United Kingdom collaborated to compile a 10-steps protection guideline for the teams of pharmacy in English, Pakistan, and Urdu language. It included guidelines on pharmacy signage, washing of hands according to the WHO 7 steps hand-washing technique, self-isolation, social distance, wearing of face masks, prescription handling, mobile phone handling, cash or computer handling, sanitation of premises, and COVID-19 testing (5). The full table and description of the guidelines can be found here Pharmacists at the front line beating the COVID-19 pandemic

These guidelines can be accepted or modified by any country in line with their own regulations and laws (5).

Singling out individuals that probably have immunity after exposure to COVID-19 has been proposed and this might be possible through antibody testing. The WHO has however informed that there is presently no evidence that these people are immune to a second infection, which questions the degree of use of antibody testing. With adequate training, pharmacies can become hubs for the conduction of these tests (6).

Pharmacy premises are conveniently placed to act as hubs for vaccination not forgetting their long experience in administration of vaccines such as flu vaccine and other vaccination. Pharmacists being drug experts, are also capable of ensuring that there is appropriate prescription and use of COVID-19 treatments. The advancement of their understanding of possible therapeutical options and knowledge of the recent research surrounding treatments for COVID-19 will guarantee adequate preparation and immediate response when needed (6).

4. Challenges and Strategies

Pharmacists have crucial roles in health disaster improvement including various activities, such as refilling emergency kits and restoring normal stock (7). For illustration, during the pandemic, pharmacists facilitated in-patient medication regimens in hospitals (e.g., adjustment of dosage forms, prescription of therapeutic substitutions, synchronizing dosing intervals in wards to reduce nursing susceptibility when administering drugs, etc.) (8).

However, challenges persisted as pharmacy professionals and pharmacists were at the frontlines addressing the COVID-19 pandemic, such as inadequate amounts of protective personal equipment, legislative obstacles resulting in high risk of infectious exposures within healthcare professions, and lack of provider status (9).

It was apparent during the pandemic that pharmacists should have more streamlined training courses that utilize models rather than unspecific, lecture-based training—hence, failure to acquire ethical preparation could give pharmacists an enormous sense of unpreparedness (7).

The COVID-19 pandemic was used to illustrate rapidly evolving scenarios requiring proper, frequent, and comprehensive training sessions to keep pharmacists aware of the most recent updates—thus, pharmacists' new

roles in the healthcare systems can lead to better prepared disaster response, as observed during the pandemic (7). The community and hospital pharmacists continue to participate by giving information on precautions related to COVID-19 whilst providing indispensable services to healthcare teams and patients through sustained provision and supply of therapies and treatment. The healthcare community would acknowledge the roles of pharmacists more when pharmacists participate in decision-making processes and there are sufficient demonstrations of pharmacists non-traditional roles in literatures (10).

Also, clinical pharmacy proposed health care institutions can inculcate pharmacists in disaster planning and emergency preparedness, as they are crucial as well as critical during pandemic and epidemic situations (7). The public can easily access pharmacists, and this offers the advantage of providing services that can curtail unimportant hospital visits. For instance, giving pharmacists the license to procure vaccinations is promising even though they serve as immunizers, educators, or facilitators (8).

Pharmacists can perform several roles, which include policy coordination, patient management, and response integration. In improving the roles of pharmacists in public health emergencies, pharmacists should adopt the provision of pharmaceutical care, broaden participation in the therapeutic plans of patients and in the management of clinical teams, and should be able to evaluate all patient situations. Furthermore, various roles have been speculated by pharmacists engaged in various sectors including pharmaceutical companies; such pharmacists have an important role in ensuring the quality of medications and in ensuring that drug supply is adequate and standard for use during emergencies. For the healthcare system to acknowledge pharmacists' new non-traditional roles, it is necessary for pharmacists to be involved in policy coordination and there should be proper presentation in literatures (5).

With the paramedics, nurses, and doctors present in the quarantine centers, emergency departments, and isolation wards, pharmacists would be able to clench onto this end and can lessen the patient suffering by offering vital consultations and triaging and via Telemedicine, reducing the burden of the doctors and healthcare system. Lower Middle-Income Countries (LMIC) where patients are unable to afford the consultation fees of

doctors are in dire need of the support of pharmacists, hence, in lack of standard treatment, it is important that pharmacists provide pharmaceutical care thereby managing the increase of COVID-19 cases (5).

Accordingly, satisfactory protocols and guidelines that pharmacists could utilize to be better organized and prepared during disasters should be established and reviewed by a multifaceted team as pharmacists can work in close collaboration with international humanitarian organizations like World Health Organization (WHO), Red Cross and local community workers to increase its outreach to the public and ensure delivery of medicines (5).

Moreover, additional dissemination and research and on effects and results of Emergency Preparedness and Response (EP&R) can strengthen the acknowledgement of the value of pharmacy professionals and contribution during public health emergencies. The proposed Pharmacy Emergency Preparedness and Response (PEPR) Framework can be employed to analyze, formulate, disseminate, and implement results to strengthen existing efforts and establish novel initiatives in EP&R (9).

There are increasing prospects and suggestions for pharmacists that should be broadened upon to provide enhanced patient care and population health interventions, and to assure healthcare workers and public health.

5. Lessons

The Covid 19 pandemic brought a lot of changes around the world. The changes were but not limited to religious practices, governance, recreation, business and economics, healthcare services and practices, amongst others (11).

There are a lot of lessons to learn from this and if the vaccines reduce infections and variants are kept at bay, life could possibly return to some form of normal. Some of these lessons are (12):

- Telehealth is of Great Essence

Countries around the world that were not technologically advanced were greatly affected. The pandemic brought with it a new need to what had been a progressive transition to online platforms for remote patient visits like Zoom (12). Pharmacists became more involved in renewing and managing medications, clarifying misconceptions, screening patients for COVID-19

symptoms, and providing minor ailment consultations. Pharmacists also invest a significant amount of time communicating and connecting with other health care practitioners because of their patients, to clarify drug orders and offer pharmaceutical opinions and recommendations to promote medication management (13).

- Innovation and Change

The COVID-19 pandemic helped pharmacy educators to think about their teaching and assessment methods like never. It encouraged innovation and change resulting in the transformation of the classroom into a continual experiment with the students' mastery of online education which appears to aide self-directed learning leading to the development of a set of key transmissible skills (14).

- Recognition of Pharmacists

The need for pharmacists to be recognized as frontline workers in their role of mitigating the effect of worldwide pandemics in countries within Africa with resource constraints. To this end, opportunities in volunteering should be made available for pharmacy students, so that they can be ready as frontline workers for another emergency. The review of the pharmacy curriculum in Nigeria was put under consideration to include laboratory work in service work as well as virology with focus on public health, to enable students to handle another pandemic in the future (14).

- Focus on Mental Health

Arman Fesharaki-Zadeh, MD, Ph.D. a neuropsychiatrist and behavioral neurologist and believes that the majority of mental health problems were on the rise because of the outbreak. People were juggling things. Working from home, handling news or cases of their loved ones, taking care of their kids, and there was also job loss and unexpected isolation. According to a CDC report, anxiety and depression increased from 36.4 to 41.5% in 7 days. Therefore, mental health should not be ignored in case of another outbreak (12).

6. Conclusions

This research work investigated the role of pharmacists in health care delivery. As mentioned earlier in this work, The role of health care professionals cannot be emphasized when it comes to disease outbreaks. Pharmacists are directly involved in drug delivery and

patient counseling. They ensure that the patients are knowledgeable of the new vaccine, isolate individuals who are identified to have those diseases, and give out recommendations. They help to ensure safe health practices and provide services that would aid people in the future (15).

Footnotes

Authors' Contribution: A. N. E. wrote the abstract, the background of the study, and the advances made. F. O. A. wrote on the challenges and strategies. C. V. A. wrote on the lessons and conclusion. Y. A. A. critically revised manuscript for important intellectual content and supervised the study.

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