

Impact of Coronavirus and COVID-19 on the Present and Future of the Pharmacy Field

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ABSTRACT

Given that coronavirus is new to the world, staying informed is vital. The world does not know much about curing the virus but experts in the pharmacy field should take it upon themselves to keep the public informed on ways to protect themselves. There have been numerous publications ever since the pandemic broke out, but some might be misinformed. With pharmacy being the health science linking chemistry with medical science, it is the role of those in the field to shed some light on the appropriate measures to take to avoid getting infected with the virus. Pharmacy should be accessible and trustworthy. The aim is to focus more on essential services while reducing transmission. Institutions can also turn to a learning approach when seeking to deliver clinical education publication explores on the impact of coronavirus and COVID-19 pandemic on the present and future of the pharmacy field including; pharmacy practices, students, education, researchers and universities.

Keywords: COVID-19, Pharmacy, Pandemic, Virus, Health science.

INTRODUCTION

Prior to 2019, Coronavirus had not been detected in humans. Before the outbreak in December 2019, in Wuhan Province of China, coronavirus and COVID-19 were unknown. This virus is responsible for causing the infectious disease called COVID-19. Since it was first detected, COVID-19 has grown into a pandemic, affecting numerous countries worldwide. As of September 7th, 2020, the number of confirmed cases worldwide is at almost 27 million. The pandemic has proceeded to claim around 893,000 lives.¹ The only silver lining to this dark cloud is that around 19.3 million people have fully recovered from COVID-19. According to the World Health Organization, coronavirus and COVID-19 have so far affected 216 countries, or regions. The pandemic has totally turned the world upside down² Many industries have been affected. Given the nature through which coronavirus spreads, it makes it very difficult for people to go around their

business in a normal manner. The virus spreads mainly when people get into close contact with each other. If one person takes in small droplets from an infected person as they speak, cough, or sneeze, they are at risk of getting infected.³ It is therefore, easy to see how the pandemic has affected the world and how people go about their business. In the field of pharmacy, coronavirus has had a huge impact. This publication explores on the impact of coronavirus and COVID-19 pandemic on the present and future of the pharmacy field including; pharmacy practices, students, education, researchers and universities.

The Pandemic Phase

Role and issues identified

There is no telling when and if the coronavirus pandemic will be over. As much as other fields have experienced a negative impact due to the pandemic, the field of pharmacy seems to be have hit

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hard. The entire coronavirus and COVID-19 situation is redefining how everyone responds to the pandemic⁴ It being a new thing, experts in the pharmacy field have to step up and lead the way in facing this pandemic head on. Pharmacy as a profession has for a long time been trusted by humanity to come up with solutions in times such as this. As a result of the pandemic, many countries have gone on lockdown⁵ This creates an even greater dependency on pharmacists. The pandemic has led to hospitals being overwhelmed⁶ and it is at this point that society looks up to the pharmacy field to cater for their public healthcare needs. In most countries under strict lockdown, pharmacies have been left open for the public which underlines just how important they currently are in some countries, the outbreak is so severe that hospitals are running out of hospital beds.⁷ This calls for an urgent revolution in the pharmacy field. Pharmacists have to find creative ways to provide healthcare services in a bid to release some of the burden from hospitals.

Medical services are under immense pressure as they tackle the COVID-19 pandemic. The prevention and treatment of non-communicable diseases has severely been affected. This is according to a survey done by the World Health Organization in May, which involved 155 countries.⁸ According to the survey, the impact of the COVID-19 pandemic is global but the most affected countries are the low-income ones. The survey continues to reveal that as the fight against coronavirus progresses, there are numerous people living with other non-communicable diseases such as diabetes, cancer, and cardiovascular diseases, who are not getting the treatment they require. People living with such diseases are at a particularly high risk of succumbing to COVID-19 related illnesses⁸ As such, experts in the field of pharmacy are being called upon to find creative ways of ensuring those suffering from non-communicable diseases can still receive the proper healthcare they deserve, especially now that hospitals have a lot on their plate.

The most Appropriate Protection Measures

Given that coronavirus is new to the world, staying informed is vital. The world does not know much about curing the virus but experts in the pharmacy field should take it upon themselves to keep the public informed on ways to protect themselves. There have been numerous publications ever since the pandemic broke out, but some might be misinformed. With pharmacy being the health science linking chemistry with medical science, it is the role of those in the field to shed some light on the appropriate measures to take to avoid getting infected with the virus⁹ Pharmacy should be accessible and trustworthy.

Most people suffering from COVID-19 experience respiratory illnesses and recover without needing any special treatment. However, it can be more severe to some than others, especially the elderly, and those with underlying conditions such as diabetes, lung and heart diseases¹⁰ It is important to note that it is possible to lower the chances of getting infected by the virus by personally observing precautions such as:

- i. Keeping hands clean by washing using an alcohol-based sanitizer.¹⁴ The alcohol-based sanitizer kills viruses lurking on your hands. An alternative to this is using soap and water to clean the hands.
- ii. Keeping a distance of 3 feet (1 meter) from others. This prevents the possibility of inhaling liquid droplets from the people around, as it is difficult to tell who has the virus and who does not.
- iii. Avoiding crowded areas. Being in a crowded place makes it hard to maintain social distance of 1 meter while also increasing the chances of bumping into a person infected with COVID-19.¹¹
- iv. Avoiding touching the face especially the eyes, mouth, and nose. This is because the hands are in contact with a lot of germs and viruses. Touching these organs can transfer the virus from the hands to them.¹²
- v. Practicing self-isolation even when experiencing mild symptoms.¹³ This ensures the safety of yourself and others.
- vi. Covering mouth and nose when in close proximity with others. It is possible to spread the coronavirus while still not showing any symptoms. It is therefore important to wear a mask in public to protect others from infection.¹⁴ This is especially important in cases where it is difficult or impossible to maintain social distance.

Dealing with Shortage of Personal Protective Equipment

The pandemic has been spreading like wild fire and there has been an ever rising demand in various commodities deemed necessary in the fight against COVID-19. The World Health Organization recently warned of severe global disruption in the supply of personal protective equipment, mainly a result of panic buys, hoarding and misuse of such commodities (World Health Organization, 2020). This disruption is not good to the pharmacy field as a significant global population find themselves lacking these personal protective equipment (PPE) which include; face masks, gloves, gowns, respirators, aprons, and eye protection. This means they are at a higher risk

of infection (World Health Organization, 2020). In regions where there are shortages of personal protective equipment, health practitioners are dangerously exposed to the coronavirus due to ill-equipment.¹⁵ They are unable to fully protect themselves and their patients from the virus.

To deal with the shortage of PPE, pharmacists should take it upon themselves to come up with strategies of identifying and extending PPE supplies (Centers for Disease Control and Prevention, 2020). Those practitioners who operate pharmacies should restrain from hoarding commodities.¹⁶ The World Health Organization also appeals to governments to ease on export restrictions.¹⁷ They should also implement measures meant to stop all the speculations and avoid the unnecessary hoarding of PPE. The World Health Organization also appeals to industries to increase production by 40% to meeting the rising global demand. It is the duty of pharmacists to educate the world on how to rationally and appropriately use personal protective equipment.

Pharmacy Education

It is crucial for society to have a sustainable and adequate pharmacy education during the pandemic. Pharmacy institutions are facing challenges in providing adequate education all around the world.¹⁸ Pharmacy educators have gone through cycles of stress, resilience, and hope by looking for opportunities and purpose in this dreadful times. Looking for opportunities means that pharmacy educators have to approach the task at hand differently. One great lesson the pandemic has taught people is that there is no possible way of precisely knowing what will happen. This means that it would be wise to educate students using a system that not only includes a long-term plan of their professional future, but also include agility and connectivity to prepare them for crisis.

Communication

The connectivity ensures that communication is free-flowing. Pharmacy institutions would benefit greatly from centralizing communications to eliminate any case of confusion or misinformation.¹⁹ This translates to students always being properly informed which improves their decision making. In a bid to support pharmacy students and those doing research in this field, many pharmacy institutions have resulted to delivering education through online classes. This way, there is no face-to-face interaction with students which means the virus cannot be transmitted.²⁰ It is the duty of institutions to ensure that instructors, students, and researchers are all familiar with the virtual meeting technologies (such

as Zoom and Skype) to be used when implementing the online learning system. According to (Surveillances, 2020) researchers can share their findings or work together via Zoom instead of being in a room together. This ensures their safety and that of others.

The Transition Phase

It is already quite clear that the world has to collectively adjust to the new way of living. Now that it has become very difficult for pharmacy institutions to teach or conduct research in a face to face manner, it is high time they embrace the internet. The internet contains a vast network of information and materials necessary to implement online classes.²¹ The students in these institutions can benefit from the countless resources the internet has to offer. Researchers can also work together without having to be at the same place physically. Such a transition can prove very difficult considering the short implementation timeframe. Needless to say, where there is a will, there is a way. The field of pharmacy has been resilient in finding solutions for global problems throughout history which means, it has the will and implementing an online system that benefits both students and researchers is achievable.²²

Pharmacists have a professional role to consider the needs of others before their own. Given that students in pharmacy institutions are pharmacists in training, now would be a good time to show what they can offer the public. The public's need for reliable health services and access to medication has strongly been amplified during the coronavirus pandemic. Institutions should encourage their students to rise to the occasion and be part of delivering quality healthcare.

Learning and research institutions have been under immense pressure following the pandemic.²³ It is important for these institutions to find ways to ensure that research and education goes on regardless of whether the pandemic simmers down or not. These institutions can deal with the pressure by employing a containment approach to delivering clinical education. A containment approach involves removing researchers and students from any and all practice sites. The aim is to focus more on essential services while reducing transmission. Institutions can also turn to a learning approach when seeking to deliver clinical education. In a learning approach, researchers are placed in practice sites. This approach aims at helping researchers observe activities of response to the pandemic. Another approach to consider when delivering clinical education is the workforce support approach. This approach aims at gearing up students with skills for them to apply when

supporting pandemic response activities This approach is quite useful as both parties benefit. The students get to learn a lot pertaining the way to respond to pandemics and the public benefits from what the students learn.

The online education system might have allowed students to carry on with their curriculum but it is not perfect The best way to instill knowledge is through physical presence and adopting a whole new system is not easy. The traditional learning system allowed for students to interact with their peers and the school but that might prove difficult with the new online learning system. Students are not only bound to lose casual interactions with their peers but also miss out on participating in co-curricular activities as well as social events Some students may find it easy learning from distance, most of them may have trouble learning without the motivation of personal connections.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ABBREVIATIONS

WHO: World health organization; **COVID-19:** Corona virus diseases.

SUMMARY

Throughout history, mankind has overcome all sorts of pandemics, inclusive of wars, floods, diseases, and famine. There may not be a foreseeable future as to whether the coronavirus pandemic will be over, but with the resources available, there is adequate hope that healthcare practitioners, with the help of those working in pharmacy will eventually come up with a solution. Hope is not always enough. True to this, sitting around hoping for things to get better does not cut it. Actions are the ones that count. With doctors held up on 24/hr basis, it is up to pharmacists to ensure that those in need of medical services get the help they deserve despite doctors being tied down. It is also up to pharmacy institutions to ensure that learning does not halt. The pharmacy industry should evolve as it has been doing for hundreds of years and repay the trust that society has towards it by making life bearable now and in the future during the coronavirus pandemic.

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