



## **A Review on the Pharmaceutical Care Services during COVID-19 Pandemic in the Philippines**

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### **Authors' contributions**

*This work was carried out in collaboration among both authors. Author FIM designed the study, performed the literature search, wrote the protocol and wrote the first draft of the manuscript. Author EMF suggested the topic, analyzed the all the data, and checked for corrections. Both authors read and approved the final manuscript.*

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### **ABSTRACT**

**Aims:** As a developing country, the Philippines was among the hard-hit countries in the on-going COVID-19 pandemic. Pharmacists have stressed the significant role they play on the frontlines in the fight to lessen the pandemic's detrimental impacts.

**Methodology:** Using available published materials obtained from various journal databases, this article review identifies and discusses the pharmaceutical care activities of pharmacists during the pandemic caused by COVID-19 in the Philippines.

**Results:** Pharmaceutical care services like teleconsultation and provision of drug information were provided to the public and even to other healthcare professionals through telepharmacy, managing minor illnesses in the community, maintaining patient's access to prescription and maintenance medications, teaching and campaigning for vaccination, and even receiving training to administer COVID-19 vaccines to assist in the country's vaccination programs were documented in this review.

**Conclusion:** Indeed, the pandemic has offered a chance to emphasize the critical role pharmacists play in healthcare delivery especially in a country where people perceive pharmacists as merely sellers of medicines.

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## 1. INTRODUCTION

COVID-19 is a global pandemic that has disrupted and even claimed people's lives. As of December 2021, as reported by the Department of Health (DOH), COVID-19 has afflicted over two (2) million Filipinos, resulting in over fifty (50) thousand deaths [1]. Since the outbreak of this pandemic, pharmacists have been in the forefront of developing creative measures to reduce the pandemic's negative impact [2].

With such trying times and evolving conditions, pharmacists are confronted with uncommon obstacles [3]. In order to help national pharmacists' associations and academic institutions, as well as individual practitioners respond to the pandemic at the country level, the International Pharmaceutical Federation (FIP) provided professional counseling, a schedule of digital events, and other resources, as well as advocacy and policy tools [4]. The American Society of Health-System Pharmacists (ASHP) and the American Pharmacists Association (APA) have developed practice guidelines to help the Pharmacy workforce in their response against the COVID-19 outbreak [3]. The Philippine Pharmacists Association (PPHA) COVID-19 Pharmacy Response Team, has also released guidelines to help community pharmacists deal with the pandemic's effects, particularly in terms of pharmaceutical supply, as many patients will seek their services rather than going directly to hospitals [5].

Pharmacists have shown to be vital members of the frontline healthcare team, performing key tasks and responsibilities to limit COVID's impacts [6]. Community pharmacists in Uganda were able to provide direct patient care since the majority of patients sought primary care from local drugstores [7]. In Italy, hospital pharmacists were able to provide pharmaceutical treatment to COVID-19 patients by shifting from their non-dispensing roles [8]. Other pharmacists in Latin America participated in the pandemic by communicating COVID-19 medication information, ensuring the public has access to medications and supplies, providing patient education, and raising awareness on COVID-19 protocols [6].

With the literature available on pharmaceutical care services offered by Pharmacists in other countries, the purpose of this review is to highlight and describe the services provided by

pharmacists in the Philippines to combat the ongoing COVID-19 pandemic.

## 2. METHODS

A literature search which started last December 3, 2021 was conducted through online journal databases such as PubMed, Google Scholar, Elsevier, and Directory of Open Access Journals. Titles including their abstracts or full-texts were examined to find publications that detailed the pharmaceutical care delivered by pharmacists in the Philippines during the pandemic. Studies with keywords such as "pharmacists", "pharmaceutical care", "pharmaceutical care services", "pandemic", "COVID-19" and "Philippines" were searched.

The articles chosen met the following inclusion criteria: (i) articles are done and focused on Pharmacists in the Philippines; (ii) published from 2019-2022 during COVID-19 pandemic; (iii) published in English; (iv) has abstract or full-text available; (v) subject is focused only on different pharmaceutical care services.

## 3. RESULTS AND DISCUSSION

Pharmacists play an important role in the pandemic as healthcare professionals by directly interacting with the public [8], combating medication misinformation [9], caring for patients with chronic conditions [10], and working directly with COVID-19 patients as hospital pharmacists assigned to prepare their medications [11].

According to Zheng (2020), because face-to-face contacts were limited due to the pandemic, pharmacists used already available technology such as mobile phones and the Internet to give relevant medication information and counseling services beyond those provided at the counter [12]. Hence the emergence of a pharmaceutical care service known as "Telepharmacy", where pharmacists and patients, or even other healthcare practitioners, can use information and communication technology (ICT) to connect, which can eventually save patients trips to medical facilities while also being safer for both healthcare providers and patients [13].

In a study by Plantado et. al. (2021), telepharmacy was carried out in the Philippines by pharmacist-volunteers who are members of the Philippine Pharmacists Association (PPHA).

Inquiries were sent into two separate forms: one for the general public, in Filipino, and another for healthcare professionals (HCPs), in English. Volunteer-pharmacists utilized their mobile phones to respond to service consumers who wanted to communicate via text messages. The telepharmacy service was introduced on March 20, 2020, through the Philippine Pharmacists Association's (PPhA) social media account. From March 20 through May 31, 2020, the service was able to complete 271 requests. Drug indications, as well as vitamins, supplements, and herbal products, piqued the public's curiosity. The issue of medicine procurement drew the most attention from HCPs. Customers were also very appreciative of the pharmacists' assistance and knowledge. As we move towards the "new normal," the study proved that an online telepharmacy service can be used to provide and clarify drug information as part of primary care [14].

In addition, on July 19, 2020, the University of the Philippines – College of Pharmacy (UPCP) launched a Telepharmacy Service to assist patients with drug information and counseling. The service ran for four (4) days a week, from 8:00 AM to 5:00 PM, with volunteers composed of alumni and 38 faculty members who are registered pharmacists, and 166 student pharmacists. As of May 2021, the service had already served over 600 patients, providing them with evidence-based and up-to-date information on different medications. The categories with the most requests are shown in Fig. 1 [15].

The Department of Health (DOH) and the University of the Philippines through the National Telehealth Center issued the Joint Memorandum Circular (JMC) No. 2020-0001 which will now apply the implementation of telemedicine across the country – allowing the public to connect with physicians and other healthcare providers (including pharmacists) in order to secure medical advice without leaving their homes. Through this initiative, the physicians were able to send "e-prescriptions" or electronic prescriptions to pharmacists, who then

dispensed the medications. Patients will be able to get their prescription or maintenance medications even if the epidemic is in full swing. Hence, pharmacists still continue to ensure that patients have access to their medications [16,17].

Furthermore, during the several lockdown periods, community pharmacists have been providing essential services and pharmacies continue to remain open to cater the people's pharmaceutical care needs [18]. This is evident in the study of See and Arce (2020) which revealed that pharmacists were involved in managing common ailments in the community. Thirty (30) community pharmacists from a chain of community pharmacy participated in the study. See Table 1 for the list of common ailments encountered by community pharmacists and the corresponding management [19].

Due to the surge in COVID-19 cases, rather than going to the hospital, many patients seek community pharmacists first for health advice. As a result, the community pharmacy is recognized as the most important health facility for patients to go to for help and relief from typical COVID-19 symptoms [5] and pharmacists in the community can actually help lessen anxiety and panic, as well as direct patients to other healthcare services [14]. However, the perceived challenges of community pharmacists while providing the pharmaceutical care service were also identified as seen in Table 2 [19].

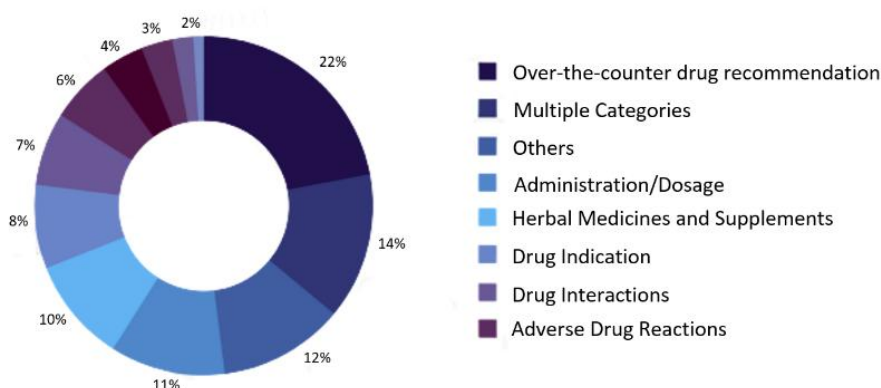
In a study conducted by Ongpoy et al. (2019), pharmacists were involved in vaccination campaigns. Pharmacists may also administer COVID vaccines if they complete immunization training as required by Republic Act 10918, otherwise known as the Philippine Pharmacy Act [20]. Fortunately, on March 26, 2021, the Professional Regulation Commission issued Resolution No. 05 Series of 2021, effective immediately, accrediting Philippine Pharmacists Association (PPhA) as the training provider for the "Immunizing Pharmacist Certification Program" or IPCP [21].

**Table 1. Common minor ailments encountered by pharmacists and the corresponding management [19]**

Ailments	Frequency (%)	Management
Colds	80	Phenylephrine + Chlorpheniramine + Paracetamol
Cough	80	Carbocisteine, Guaifenesin
Diarrhea	73	Loperamide, Oral Rehydration Salts
Allergy	66.6	Cetirizine, Loratadine

**Table 2. Perceived challenges in the management of minor ailments [19]**

Perceived challenges	Frequency (%)
Lack of drug information tools	93.3
Lack of knowledge about the ailment and its pharmacotherapy	76.7
Patients unconvinced of pharmacists' intervention	73.3
Lack of institutional guidelines in the management of minor ailments	66
Passive dispensing secondary to dominating patient self-selection of medicines	50

**Fig. 1. Categories of queries received in the UPCP Telepharmacy Service [15]**

In order to provide Filipino pharmacists with the required skills to become a trusted source for vaccine advocacy, education, and vaccination, the IPCP includes four levels of learning that are linked with current worldwide immunization standards. There are already seventy-three (73) pharmacists who have been certified as of July 2, 2021 [22].

A vaccine deployment town hall was hosted by the Department of Health and the Philippine Pharmacists Association to highlight the role of pharmacists in the Philippine National COVID-19 Vaccination Deployment Plan as part of the vaccination team acting as vaccinators and Adverse Event Following Immunization (AEFI) composite team as those who monitor and assess adverse drug events [23,24].

Lastly, the DOH's "Resbakuna sa Botika" program, which was started in January 20, 2022 in collaboration with the country's largest drugstores, allowed certified pharmacists to now give COVID vaccines inside pharmacies and clinics. The goal of this program is to make it easier for the Filipino people to get vaccinated against the deadly coronavirus [25].

#### 4. CONCLUSION

During the pandemic, pharmacists in the Philippines provided a variety of pharmaceutical

care services - teleconsultation and provision of drug information were provided to the public and even to other healthcare professionals through telepharmacy, maintaining patient's access to medications, management of common ailments in the community, and campaigning for vaccinations, where pharmacists successfully completed an immunization certification program to ensure that they equipped and ready as they participate in the nation's COVID vaccination programs.

There might have been other pharmaceutical care services provided by the Filipino pharmacists during the pandemic which were not reported and published. But this article shows that Filipino pharmacists have not stopped working because of the pandemic and in fact, have stepped up to take on more challenging responsibilities.

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#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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