

Pharmacists' Efforts in Community Pharmacy to Achieve Health Protocol Compliance During the Covid-19 Pandemic in Lamongan

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ABSTRACT

Pharmacists also play a role in helping control infections Covid-19, so this study aims to determine the efforts of Pharmacists in Community Pharmacy to achieve compliance with health protocols during the Covid-19 pandemic in Lamongan. This research is a descriptive observational study using a cross-sectional study with a validated questionnaire. There were 52 Pharmacists who practice at the Apothecaries. The results showed that most of the pharmacists made efforts such as: providing hand washing facilities(78.8%),preparing personal protective equipment (75.0%) and procuring multivitamins, handsanitizers (71.1%). Other efforts that are quite important for pharmacists are reminding each other to comply with the Covid-19 protocol by always wearing a mask, washing hands regularly, checking body temperature, disinfection of rooms and tools that are prone to contact with other people. Based on this, it appears that the existence of pharmacists during this pandemic is quite large.

Keywords: Community Pharmacy, Covid-19, Pharmacist, Pharmacist Effort

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BACKGROUND

Novel coronavirus (2019-nCoV) is a new type of virus that has never been previously identified in humans. This type of coronavirus is known to cause diseases that can cause severe symptoms such as *Middle East Respiratory Syndrome* (MERS-CoV) and *Severe Acute Respiratory Syndrome* (SARS-CoV). The SARS-CoV-2 outbreak caused high mortality during 2002-2003. The initial transmission of the SARS-CoV-2 outbreak was thought to have been through zoonoses linked to a seafood market in Wuhan, China. It was later discovered that the outbreak that played a major role was human-to-human transmission. The disease caused by this virus is called Coronavirus disease 19 (COVID-19) and a pandemic is declared by the World Health Organization (WHO) (1)

COVID-19 has affected large numbers of people around the world, in about 200 countries and territories. A total of 216 countries have experienced the COVID-19 pandemic due to the SARS-CoV-2 outbreak. According to WHO data, as of May 26, 2020, a total of 5,406,282 people were reported to have been confirmed with COVID-19 globally (2). In Indonesia, on May 26, 2020, the Government of the Republic of Indonesia has reported 23,165 people who were confirmed with the coronavirus disease (COVID-19) (3)

The clinical manifestations of COVID-19 are quite varied, namely: asymptomatic (without symptoms) acute respiratory disease (ARI), and pneumonia. Patients with pneumonia have respiratory symptoms and are supported by X-rays of the lungs. The prevalence of asymptomatic cases is a significant percentage (20-86% of all infections). The rate of transmission in asymptomatic carrier patients has the impact of an increasingly rapid spread (4) (5).

Common symptoms that accompany the clinical manifestations of COVID-19 are cough, shortness of breath, fever, pneumonia, respiratory failure and death. Worldwide, around 343,562 deaths have been reported related to COVID-19, and current data shows that elderly people who also have comorbid conditions such as hypertension or diabetes mellitus are at the highest risk for mortality (6)

The identification of COVID-19 in Indonesia is a very big challenge, given the availability of massive testing using *rapid tests* insufficient. The inability to test widely and rapidly has hampered our ability to characterize disease epidemiology, prevent further spread, and ensure optimal use of other limited resources such as personal protective equipment (PPE) and therapeutic medications (7). Through preventive measures recommended by WHO, the government and the community are working together in dealing with the spread of COVID-19, one of which is by socializing themovement *Social Distancing*. This concept explains that in order to reduce or even break the chain of Covid-19 infection, one must maintain a safe distance with other humans at least 2 meters, and do not make direct contact with other people, avoiding mass gatherings. Another prevention effort is Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions (PSBB) in the Context of Accelerating Handling of COVID-19. During the PSBB period, the Indonesian government asked for pharmaceutical services to continue. (3) (8)

Pharmacists as one of the health professions who are at the forefront and serve directly to the community so that the role of a pharmacist is needed in ensuring the production, distribution and service of drugs for COVID-19 patients as well as medical devices needed in pharmaceutical facilities, including community pharmacies, Pharmacy. As for Pharmacists' efforts to prevent or break the chain of COVID-19. Efforts that can be made by Pharmacists include: socialization of COVID-19 prevention with defense / enhancement of the immune system, making *hand* sanitizers, disinfectants, always applying the concept of

physical distancing and wearing PPE in each pharmaceutical facility, as well as maintaining personal hygiene by diligently washing hands (9) (10). Therefore, a pharmacist is required to have knowledge and skills in carrying out these roles and efforts, including knowledge and skills in the fields of management, communication and pharmaceutical sciences.

METHODS

This research was conducted in July 2020 - December 2020 in Pharmaceutical Facilities, Community Pharmacy, Pharmacy, Lamongan City. This research is an observational descriptive study using aresearch method *cross sectional* by giving a questionnaire. The sampling technique was *purposive sampling technique*.

The population used in the study were all pharmacists in pharmaceutical facilities, community pharmacies, pharmacies in the city of Lamongan. The sample is a Pharmacist at the Lamongan Pharmacy who meets the following inclusion criteria: Pharmacists who are domiciled in Lamongan and are willing to participate in filling out a complete questionnaire, Pharmacists who already have a Pharmacist Practice License (SIPA) and carry out pharmacy practices at the Pharmacy.

Instrument used was questionnaire *google form* via a link that was shared *online* through thegroup *Whatsapp* of the Pharmacist organization in Lamongan (IAI Lamongan). That has been obtained from the data collection process will be converted into tables, then the data is processed using a statistical software program on a computer. Data from the online survey was exported to Microsoft Office Excel and exported again to IBM SPSS Statistic 20. Frequency analysis was carried out to create a demographic profile of respondents. Then, the data processing consisted of *editing, coding, scoring, data entry, verification, computer output*. The data that has been obtained from the questionnaire are processed and analyzed descriptively in the form of a percentage table.

RESULTS

Research Sample Characteristics

The sample data on this study was 75 pharmacists by considering inclusion and exclusion research criteria. Most of them were female, as many as 67 pharmacists (89.30%) and most of them were in the young adult category, 26–35 years, as many as 47 pharmacists (62.67 pharmacists). In addition, pharmacists who practice pharmacy with 2 pharmacy practice places, a total of 25 (33.30), still appear to be dominant in pharmacists who practice in 1 pharmacy practice location (66.70%). The data presented in table 1.

Table 1. Patient Demographic Data Characteristics

Category	Number of Respondents (%)
Age	
17-25 Years	17 (21.30)
26-35 Years	47 (62.67)
36-41 Years	10 (14.67)
> 41 Years	1 (1.33)
Gender	
Male	8 (10.7)
Female	67 (89.3)

Number of Pharmacy Practices	
Location 1	50 (66.70)
Location 2	25 (33.30)
Practice Location 1	
Hospital	19 (25,30)
Public health center	10 (13,30)
Apothecaries	41 (54,70)
Beauty Clinic	1 (1,30)
Health Clinic	4 (5,30)
Practice Location 2	
Hospital	3 (10,70)
Public health center	4 (14,30)
Apothecaries	11 (42,90)
Beauty Clinic	1 (1,30)
Health Clinic	6 (8,00)
Duration of Pharmacy Practice	
<1 year	18 (24,00)
> 1-3 years	29 (38,70)
> 5-10 years	19 (25,30)
> 10 years	9 (12,00)

Data the characteristics of the research sample are based on the efforts of pharmacists in pharmacy practice to prevent / break the chain of transmission of Covid-19

Pharmacists' Efforts to Prevent Covid-19 Transmission and Compliance to health protocol Covid-19. The data presented in table 2.

Table 2. Pharmacists' Efforts to Prevent Covid-19 Transmission and Compliance to health protocol Covid-19. The data presented in table 2.

Pharmacists' Efforts	F	%
Procurement of Drugs and Multivitamins (Immunbooster, Antioxidants, Honey)	37	71.1
Procurement / manufacture of <i>handsanitizers</i>	47	90.4
KIE (Educational Information Counseling)	34	65.4
Procurement of PPE (cloth masks, medical masks, gloves)	39	75.0
Provision of hand washing facilities	41	78.8
Provision / manufacture of disinfectants	35	67.3

Establishment of Physical Distancing Areas	36	69.2
Always Check Temperature Before & After Entering the Pharmacy	30	57.7
Disinfection of Pharmacy Room	30	57.7
Disinfection of tools / objects around	22	42.3
Always wear a mask	41	78.8
Wash your hands with soap	39	75.0

-The percentage is obtained by comparing the total number of pharmacists who practice in Community Pharmacy, Pharmacy (52 pharmacists)

DISCUSSION

The results showed that there were 75 pharmacists who met the inclusion criteria in the sample of this study. Most of them were female, as many as 67 pharmacists (89.30%) and most of them were in the young adult category, 26–35 years, as many as 47 pharmacists (62.67 pharmacists). In addition, pharmacists who practice pharmacy with 2 pharmacy practice places, a total of 25 (33.30), still appear to be dominant in pharmacists who practice in 1 pharmacy practice location (66.70%). In (Table 1) it is also seen that the locations of these pharmaceutical practices are generally found in the pharmacy as the first and second location for the pharmaceutical practice, namely (54.70%), and (42.90%). This is as stated in (11) that a Pharmacist who has a Pharmacy License, the Pharmacist concerned can only have 2 (two) SIPA in other pharmaceutical service facilities. In addition, it also explained that the Pharmaceutical Technical Practices Permit (SIPTTK) can also be given to a maximum of 3 pharmacy facilities.

Pharmacy is a pharmaceutical service facility where pharmacists practice pharmacy. Pharmacists carry out pharmaceutical work which basically includes health promotion and disease prevention to achieve goals in the health sector, drug supply and use, advocacy and / or drug supply for (*self-care/self-care*), and increasing rational drug use (12). Research data (as shown in Table 2) shows that several pharmacist efforts play an important role in breaking / preventing the Covid-19 transmission chain, among which the most dominant in the results of this study are related to the procurement / manufacture of *handsanitizers* (90.4%). Based on research (3) states that the role in community pharmacy, especially pharmacists, is important to move swiftly during the Covid-19 pandemic. Pharmacists carry out infection control innovations to protect staff, patients, and their communities, such as: Routinely cleaning the pharmacy room with disinfectant, using gloves when cleaning objects around the pharmacy, *social distcancing*, using glass protector with the aim of creating social distancing at the cash register, using a cashless payment system at the pharmacy, providing a *handsanitizer* that patients can use before making transactions at the pharmacy. Handsanitizers are a practical alternative for the community as a substitute for soap to clean their hands when they do not find facilities for washing hands with soap and running water. The function is *handsanitizer* able to prevent microbial infections because they generally contain an alcohol composition of 62% -95% (13)

Pharmacists who practice in the community, Pharmacies, are required to wear Personal Protective Equipment (PPE) in the form of disposable masks and gloves to avoid direct contact with patients where they work. If a pharmacy cannot carry out educational

counseling optimally because of a glass barrier or does not have a counseling room, the pharmacist can take advantage of the telehealth method. However, during a pandemic like this, self-protection, the safety of patients and staff is very important. The results of the study (3), are in line with the results of this study, that the pharmacists' efforts also include compliance with health protocols for checking body temperature with a thermogun before and after serving in a pharmacy, routine room disinfection before and after use; use and prepare a *handsanitizer* in the work room; wearing PPE in the form of a mask in a pharmacy, washing hands with soap. Regular cleaning of surfaces and items will also help to eliminate potential sources of spreading infection. The World Health Organization (WHO) states that the use of masks can protect and prevent the spread of Corona virus infection. The role of using this mask does not only apply to patients who have symptoms but also in healthy communities it is still recommended. This is useful in reducing the potential risk of exposure of an infected person before they develop symptoms; minimizing stigmatization of people wearing masks to prevent infection to other people (source control) or people caring for COVID-19 patients in non-clinical settings; of course also taking a role in helping to stop the spread of the virus (14)

The results of other studies indicate that the provision of hand washing facilities is an effort made by the majority of pharmacists in Lamongan (78.8%). Washing hands with soap and running water plays an important role in reducing the spread of Coronavirus by 44% and is an effective method that is recommended for the community (15). Other efforts made by pharmacists in Lamongan are the procurement of drugs and multivitamins. Multivitamins can support immunity in a pandemic like this. The multivitamins used in several pharmacies in Lamongan include vitamins to increase endurance (Immunbooster), antioxidants (for example: Vitamins A, C, D, E, Zinc, Selenium), nutritional products such as honey. This is in line with research (16) (17) that honey has a variety of vitamins, minerals and enzymes that are beneficial for body immunity.

The efforts of Pharmacists in Lamongan in implementing health protocols were also carried out by creating aarea *physical distancing* (69.2%) which aims to minimize interaction between communities where there may be several residents being infected but not doing independent isolation. This is also explained in research (17) that activities *physical distancing* have a significant impact on reducing the risk of transmission and also helping to minimize the risk of crime due to the economic crisis during the Corona virus pandemic. Transmission of Corona virus infection through droplets, so that the transmission rate of COVID-19 can be higher than other infective viruses. One of the efforts that had a very significant impact was disinfection of the room and tools / objects around, as in the results of this study, this was done by pharmacists in Lamongan (57.7%). Another study from (18) also states that disinfection of surfaces and washing hands with soap and water are the most effective steps to stop or reduce the spread of the SARS CoV-2 virus which causes the coronavirus disease (COVID-19). (18) also explained that the Coronavirus can stay on inanimate objects for up to 9 days. Therefore, disinfection with 0.1% sodium hypochlorite or 62-71% ethanol significantly reduces coronavirus infectivity.

Various efforts have been made by Pharmacists in Lamongan to participate in complying with health protocols in order to prevent the spread of the Covid-19 Virus. Pharmacists who practice community pharmacy must also remain involved in a coordinated effort and be adaptive to the changes required in pharmacy practice. It is important to always be alert to face emergencies that could potentially occur at any time at the pharmacy.

CONCLUSION

Community pharmacists are required to be responsive and responsible in participating in protecting their profession and community. In addition, community pharmacists also have an important role to play in accurately informing the public about ways to prevent transmission of the SARS-CoV-2 virus. Pharmacists are required to be committed as health workers who can carry out important professional duties, especially during the Covid-19 pandemic. Through Pharmacists' efforts to participate in complying with the Covid-19 protocol, this will help pharmacists uphold the role of public health and minimize the spread of the COVID-19 community.

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CONFLICT OF INTEREST

There is no conflict of interest in this study

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