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The Role of Community Pharmacists in Drug Information Services in Lamongan During the COVID-19 Pandemic

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Abstract.
Information about drugs has spread widely across social media platforms during the COVID-19 pandemic, resulting in drug panic buying. However, public awareness and understanding about how to use drugs properly remains low. This phenomenon may lead to medication errors. Community pharmacists can provide information about the rational use of drugs though a differential diagnosis approach by comparing clinical symptoms of similar minor illnesses to increase patient safety in taking medication. This research aimed to investigate drug information services and the ideal components of counselling, information, and education (KIE) carried out by community pharmacists in drugstores during the COVID-19 pandemic. This was observational research conducted in 12 drugstores in Lamongan from April 2021 to July 2021. The data were gathered by checklists of 8 criteria of ideal KIE based on pharmacy service standards in the drugstores. The results indicated that there was an appropriate adjustment in providing drug information during the COVID-19 pandemic. Appropriate pharmacist activity in giving KIE was 68.6%, patient response to drug information services was 61.6%, and patient ability to repeat the information was 64.9%. The pharmacists are expected to have comprehensive knowledge and ability to provide drug information services. Also, they should be more communicative to increase awareness, willingness, and ability to promote a healthy life during the pandemic.

Keywords: community pharmacy, drug information, COVID-19

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1. Introduction

COVID-19 has turned into a pandemic or global epidemic whose specific drugs has not been found yet. Based on WHO data, up to September 2021, there were 224 million confirmed cases including 4 million deaths. The United States of America had the highest prevalence of infection which reached 86 million cases. Meanwhile, in Indonesia, up to September 2021, there were 4 million confirmed cases of COVID-19 [1]. The pandemic has put the society under immense pressure. Many people panic over the information to prevent and treat their relatives who were infected by COVID-19. They also highlight the roles of pharmacists in the drugstores, not only as a response

to COVID-19 in the national level, but also other services due to the decreased access to primary health facilities like hospitals, which were restricted by the government to control the COVID-19 spread and other health regulations [2].

The spread of alternative therapies information for treating COVID-19 patients in the social media has caused panic buying of drugs in the drugstores. In Bangladesh, the prevalence of self-medication reached 88.33%, only 179 people (28.59%) followed doctor's recommendation, and the rest respondents (71,40%) used self-medication from other people [3]. This has an impact on the inappropriate use of drugs in the community. Antibiotic azithromycin and antiviral remdesivir are two drugs which are freely searched by many people because of their immunomodulatory effects that can reduce excessive inflammation and benefit tissue repair. However, those drugs must be given under special conditions and require a doctor's prescription. In addition, research related to clinical trials for the selection of Covid-19 therapy is continuing and developing [4].

According to [5] the data indicated that outpatients with SARS-CoV-2 infection which were administered by a single dose of azithromycin, compared to placebo, did not yield greater clinical condition improvement in terms of symptom free on day 14. Besides, the most searched therapy in the drugstores is antiviral like remdesivir. In the research by [6], the aforementioned therapy did not give a significant results compared to the standard therapy. This phenomenon leads to a polemic in responding to changes in people's behavior who have a low level of awareness and understanding of the proper use and selection of drugs.

The role of pharmacists, especially community pharmacists, is urgently required in order to minimize the spread and transmission of COVID-19 in the surrounding community. This is in accordance with [7]. The pharmacists also play an important role in controlling COVID-19 infection. There are some efforts made by the community pharmacists in Lamongan to achieve health protocols compliance including: providing hand washing facilities (78.8%), preparing personal protective equipment (75.0%), and procuring multivitamins and hand sanitizers (71.1%). The pharmacists are required to provide pharmaceutical services such as drug information services by applying pharmaceutical care concept for increasing patient's quality of life [8].

[9] showed that in Arab Abu Dhabi, the pharmacists had not yet conveyed all important aspects to most of the patients who came to the drugstores. The aspects included how to administer medication, how to deal with the side effects, and preventive actions for drugs overdose. Pharmacists should pay more attention to it because providing drug information can minimize the occurrence of medication error [10]. Therefore, pharmaceutical services standards in the drugstores based on the Health Minister Regulations

No. 73 of 2016 [11] must be fully considered including drug information and counselling [12] [13]. The pharmacists are hoped to be more active in providing counselling, be more initiative to begin the conversation, especially related to drug information such as the possibility of side effects, selecting appropriate drugs, and proper use of drugs. The action is considered as a special attention from the pharmacists to achieve optimal goals of drug therapy so that their presence and benefits in the drugstores will be greatly acknowledged by the community.

In the light of the background above, this research was carried out to answer: types of drug information services that were carried out by pharmacists in the drugstores and the components of KIE that had been implemented by pharmacists in the drugstores during the pandemic.

2. Method

This study was an observational study conducted in 12 drugstores which randomly selected using simple random sampling. The research was carried out in Lamongan from April to July 2021. The data were collected by using a checklist which included 8 criteria of ideal KIE based on pharmaceutical service standards in the drugstores. The research was implemented through an instrument form for data entry (using the ASMETHOD method and 8 ideal KIE criteria). Accidental sampling was done by taking cases or respondents who were available on the site. The data collection techniques were carried out continuously until the data was saturated and resulted in very high data variations. The checklist was filled directly during the observation and self-assessment of KIE services in 12 drugstores in Lamongan. Then, the data were analyzed using the analysis theory of Miles and Huberman. Initially, the data was reduced and then presented in the form of narrative text and tables. In order to easily understand, the researchers assigned a score to the data and presented it. Finally, the data were verified and conclusions could be drawn.

3. Results and Discussions

The results of the checklist of KIE services by pharmacists in the drugstores in Lamongan can be perceived in Table 1.

According to Bissel in [14], 8 ideal criteria must be considered when providing KIE including general communication skills, what information is collected, how information is collected, things that pharmacy staff must consider before giving advice/KIE, rationality

Table 1: Assessment Description of Pharmacy Staff General Communication.

Aspects	%
General ability	77,6
Obtaining information from patients	72,97
How information is collected	66,8
Things to consider before giving KIE	59,45
Rationality of the content of suggestions / KIE	79,6
How suggestions are given	74,21
Rationality of drug product selection	70,62
Attitude refers to the doctor	48,2
Average	68,6

of advice/KIE, how the advice is given, the rationality of the selection of medicinal products by the pharmacy staff, and their attitude when referring the patient to a doctor.

The results indicated that the general skills of pharmaceutical staff in terms of communication showed a good percentage, namely 77.6%. The results of this assessment are lower when compared to [15], namely 98.10%. The roles, duties and responsibilities of pharmacists have been in line with changes in orientation, namely patient-centered services. These pharmaceutical services incorporate new skills and reflect the demands and challenges of the new society. The COVID-19 outbreak has opened up new opportunities for pharmacists. Community pharmacists and hospitals play a key role during the COVID-19 pandemic [16]. Like medical workers, pharmacists have undergone regulatory changes during the Covid-19 pandemic. Pharmacists have modified their practice amid COVID-19 to ensure care and support to patients. Community pharmacists face a spectrum of challenges that must be overcome to ensure patient care continues. This includes assisting in infection prevention, managing supply chains, preventing hoarding and providing evidence-based medical information. Pharmacists are trying to minimize the spread of Covid-19 by reducing contact with large numbers of patients, although there will likely be a lasting impression on the profession, both good and bad [17]. During the Covid-19 pandemic, there are several adjustments for pharmaceutical staff in providing KIE including minimizing contact with patients by shortening meeting time and only presenting key points to the patients.

Pharmacists who work in several places and health facilities relate to patients either directly or indirectly. They can act quickly in public health responses such as drafting professional service guidelines for pharmacists who working in various health facilities, ensuring an effective drug supply system, monitoring and resolving drug shortage

issues, establishing and promoting remote pharmacy services, counseling communities on basics infection prevention, educating patients about proper use of personal protective equipment [18].

An assessment of how pharmacists obtained information from patients and the way the information was collected showed the results of 72.97% and 66.8%, respectively. [19] reported that extracting patient information in depth must be carried out so that pharmacists could choose an appropriate treatment plan for the patient.

The results of observations on the rationality of KIE content, how suggestions are given, and the rationality of drug selection had a percentage of 70.62 to 79.6. The use of drugs is rational if the patient gets the right drug for clinical needs, at an adequate dose, and at an affordable price [20]. The results are in accordance with [21] who stated that the identification of the rationality of drugs consumed by patients was 70%. Pharmacists have expertise and authority in the field of pharmacy in either in the drugstores, hospitals, industry, education, or other fields related to pharmacy. Thus, it is important for the public to consult with pharmacists before deciding to consume certain drugs so that the treatment they take has an optimal therapeutical effect [22]. Community pharmacies serve as public access points to health care and medical supplies, providing services beyond drug administration and drug counseling [23]. Therefore, it is very important for pharmacists who work in the community sector to provide two-way education for patients.

Table 2: Assessment Description of Patient Activity %.

Aspects	%
Patient answers *Three Prime Questions*	69
Patient asks drug information	77
Patient asks non-pharmacological therapy	43,5
Patient asks the continuation of therapy if the drug runs out	56,7
Average	61,55

Gaining information serves as a public access point to health care and medical supplies, provide services beyond drug administration and drug counseling [24]. There are several counseling methods that can be applied by pharmacists such as by asking the Three Prime Questions. The results of the observations showed that 69% of patients had answered the Three Prime Questions. These results are better than research conducted by [25] that was, only 38.1%. The submission of three questions or Three Prime Questions during counseling aims to prevent the provision of information that is contrary to the doctor's information, so that the patient will not doubt the competence

of the doctor or pharmacist. Besides, the submission of three prime questions also aims to obtain information about the patient.

The indicators measured in the assessment of patient activity were patient's response and patient's interest in having pharmaceutical counseling such as drug information, non-pharmacological therapy, and the continuation of therapy if the drug runs out. The results showed that of the 12 pharmacies studied, 77% of patients asked for drug information; 43.5 patients asked about non-pharmacological therapy and 56.7% patients asked about the continuation of the therapy if the drug runs out. Pharmacists contribute to the safe use of medicines. A variety of information about medicines is provided to healthcare professionals to ensure the safe use of medicines in addition to packaging inserts that contain information about indications, doses, and use of drugs, disorders due to side effects [26]. [22] disclosed that the provision of drug information could significantly increase public knowledge about the correct use of drugs.

TABLE 3: Patient Ability in Giving Feedback .

Aspects	%
Patient repeated the information given	73,6
Indication or medicinal properties	71,43
How to use	63,7
How to store	49,52
Average	64,5625

Before closing the KIE session, pharmacists need to carry out final verification to ensure patient's understanding. At this stage, the pharmacists re-confirm and conduct final verification with the aim of assessing whether the patient has adequately understood and received the information provided. If unclear information is found, the pharmacists can repeat and focus on it [11]. In terms of patient's ability to provide feedback, the results (table 3) showed 73.6% of patients were able to repeat the drug information given, the indications and efficacy of the drug had been delivered 71.43%, how to use and drug storage were 63.7% and 49.52%, respectively. Repetition can be done to ensure the patient's understanding of the use of the drug and prevent errors. Pharmacists need to confirm that the information has been conveyed properly to ensure the patient's understanding of the drug being administered [27].

4. CONCLUSIONS

There is an adjustment in pharmaceutical services regarding the provision of counseling, information and education to community pharmacists during the Covid-19 pandemic. The overall results of the study assessing the provision of drug information by community pharmacists during the Covid-19 pandemic have been measured in three aspects, namely the assessment of general communication of pharmacists at 68.6%; The assessment of the patient's activity is 61.55% and the patient's ability to provide feedback is 64.56%.

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