DIFFERENCES OF DRUG SALES BEFORE AND DURING COVID-19 AT PHARMACY STORES IN LAMONGAN, EAST JAVA

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INFORMASI	ABSTRACT
Korespondensi: *rianaprastiwi@gmail.com*	*Objective: Covid-19 became a concern in the world at the end of December 2019 and Indonesia was no exception. The virus entered Indonesia in March 2020 which caused Indonesian people to limit their activities outside. If they are sick, they choose to do self-medication first by buying medicine at pharmacy store for fear to visit health care facilities (puskesmas, hospitals and clinics). This study focused on finding out the difference between drug sales before and during the Covid-19 pandemic at pharmacy store. This study is an observational with a retrospective design with purposive sampling.*
	Methods: The instrument used in this study to collected the data on drug sales is observation form. The study was conducted in two pharmacy stores in Lamongan, East Java. The results of the study at the first pharmacy store showed that drug sales during Covid-19 were more (1,396 drugs) than before Covid-19 (758 drugs) with p<0.05. Likewise in the second pharmacy store, sales of drugs during covid-19 were more (40,993 drugs) than before covid-19 (40,062 drugs) with p> 0.05.
Keywords: Differences, drugs sale, covid-19	*Results: The results of the study at the first pharmacy store showed that drug sales during Covid-19 were more (1,396 drugs) than before Covid-19 (758 drugs) with p<0.05. Likewise in the second pharmacy store, sales of drugs during covid-19 were more (40,993 drugs) than before covid-19 (40,062 drugs) with p> 0.05.*
	Conclusion: In conclusion, there is a difference between drug sales before covid-19 and during covid-19 where drug sales increased during covid-19.

INTRODUCTION

COVID-19 (Corona Virus Disease 2019) is a virus from the city of Wuhan, China which was discovered at the end of 2019. This virus causes disease in the respiratory tract and spreads rapidly. The spread of this virus is increasing and has spread almost all over the world so that on March 11, 2020, WHO declared COVID-19 as a pandemic (WHO, 2020). Corona virus is a single-stranded and positive-chain RNA virus that belongs to the corona viridae family which is divided into subfamilies according to serotypes and characteristic genotypes which include a, , and (Susilo et al, 2020).

Covid-19 sufferers increased rapidly to 7,734 cases on January 30, 2020 and on the same date 90 positive cases of COVID-19 patients were confirmed from various countries in Asia, Europe and Australia (Basetti at al, 2020). In Indonesia, COVID-19 cases in 2020 was recorded at 25,773 cases with 1,573 deaths (Nugraheny, 2020). In East Java in the same year there were 796 positive confirmed cases with 89 cases of death (Meilisa, 2020). Meanwhile, in Lamongan, East Java as of May 2020, 105 cases have been confirmed positive and 15 cases have died (East Java Provincial Government, 2022).

The spread of positive cases of COVID-19, making people afraid to leave the house and interact. Likewise, when experiencing symptoms of mild illness such as fever, cough, flu, people prefer to visit the nearest pharmacy store for self-medication because of restrictions on health services in health service facilities (hospitals, health centers and clinics) by the government. Where people do self-medication 1-2 times during the COVID-19 pandemic and the majority of patients buy drugs at pharmacies (92%) (Amalia et al, 2022).

Most of the drugs purchased by the public at pharmac are over-the-counter and limited-free drugs which are indeed allowed for self-medication. Meanwhile, the prescription drugs that patients bought the most during the pandemic were antiviral drugs (favipirafir and oseltamivir tablets), antihelmintics (ivermectin tablets), analgesics (diclofenac) and antibiotics (azithromycin tablets) (Leonardus, 2021).

Research related to self-medication behavior during the COVID-19 pandemic has been carried out. However, research related to differences in sales of self-medication drugs before the pandemic and during the COVID-19 pandemic has never been carried out. Therefore, this study was conducted to determine the difference in drug sales before the pandemic and during the COVID-19 pandemic.

METODE

This research is a quantitative descriptive observational study with retprospective data collection.. The research data consisted of primary data. Primary data were obtained from the drugs sales data on October-December 2019 (before pandemic COVID-19) and Marc-May 2020 (during pandemic COVID-19) at two pharmacy stores in Lamongan, East Java (Keluarga Sehat Sugio Pharmacy Store and Fa Mitra Pucuk Pharmacy Store).

The population of this study is all data on drug sales in October-December 2019 and March-May 2020 at the Keluarga Sehat Sugio pharmacy store and Fa Mitra Pucuk pharmacy store. The sample for the study was 2.154 drugs in Keluarga Sehat Sugio Pharmacy Store and 81.055 drugs in Fa Mitra Pucuk Pharmacy Store which met the inclusion and exclusion criteria. Subject inclusion criteria were:top two selling drugs in October-December 2019 and March-May 2020, over the counter drugs, limited over the counter drugs, analgesic, antipyretic, multivitamin and suplemen, cold and cough medicine. Quantitative research data that has been collected will be analyzed statistically using SPSS 20 with Mann-Whitney test to compare drug sales before and during pandemic COVID-19.

RESULTS

Table 1. Drug Selling Before And During Pandemi Covid-19 At Keluarga Sehat Sugio Pharamacy Store

No.	Drug Therapy Classification	Keluarga Sehat Sugio Pharmacy Store	
		Before pandemic (drugs)	During Pandemic (drugs)
1	Analgetic and antipiretic	78	169
2	Multivitamin dan suplement	260	560
3	Decongestan	189	345
4	Mucolitic, expectorant and antitusif	231	322
Total		758	1.396
P Value		0,000	

Table 2. Drug Selling Before And During Pandemi Covid-19 At Fa Mitra Pucuk Pharmacy Store

No.	Drug Therapy Classification	Keluarga Sehat Sugio Pharmacy Store	
		Before pandemic (drugs)	During Pandemic (drugs)
1	Analgetic and antipiretic	20.904	18.250
2	Multivitamin dan suplement	6.338	4.563
3	Decongestan	3.480	6.310
4	Mucolitic, expectorant and antitusif	9.340	11.870
	Total	40.062	40.993
	P Value	0,317	

DISCUSSION

Based on table 1, the results show that there are differences in drug sales before and during the COVID-19 pandemic at the Keluarga Sehat Sugio Pharmacy Store with increasing drug sales from 758 drugs before the pandemic to 1,396 drugs during the COVID-19 pandemic. These results are supported by a p value <0.05 which indicates that there is a significant difference in drug sales before and during COVID-19 at the Keluarga Sehat Sugio Pharmacy Store. It can happened because during the COVID-19 pandemic, people prefer to self-medicate by buying drugs at pharmacy store, in line with research conducted in Kenya showing that community self-medication during the COVID-19 pandemic increased from 36.2% to 60.4% (Onchonga et al, 2020).

The most sold drugs during the COVID-19 pandemic were multivitamins and supplements, as many as 560 multivitamins and supplements. Multivitamins and supplements are the people's choice during a pandemic because they are known to have a positive effect in increasing the immune system as an effort to prevent COVID-19 (Mukti, 2020). In addition, patients who are confirmed positive for COVID-19 without symptoms and with mild to moderate symptoms who are self-isolating need vitamins C and D as pharmacological therapy (Burhan et al, 2022).

Based on table 2, the results show that there are differences in drug sales before and during the COVID-19 pandemic at the Fa Mitra Pucuk pharmacy store with p value> 0.05 which indicates that there is a difference but not significant, different from the Keluarga Sehat Sugio pharmacy store. The difference is noted by increasing drug sales at Fa Mitra Pucuk pharmacy store from 40,062 drugs before the pandemic to 40,993 drugs during the COVID-19 pandemic.

Fa Mitra Pucuk pharmacy store's most sales of drugs before and during the COVID-19 pandemic were analgesic and antipyretic drugs. In accordance with research that has been three diseases that are often treated by patients with self-medication and buying drugs at pharmacies during the COVID-19 pandemic are fever/pain (56%), flu (54%) and cough (53%) (Pariyana et al, 2010). 2021).

The next most sales of drugs during the COVID-19 pandemic after that were cough and cold medicines. In addition to being included in the category of the three most common diseases during the COVID-19 pandemic, flu and cough are symptoms of COVID-19 in both mild and moderate cases, so many patients did self-medication by buying cough and flu symptom relievers at pharmacy store (Sulistyaningrum et al. 2022).

CONCLUSSION

There are differences in drug sales before the COVID-19 pandemic and during the COVID-19 pandemic at the Keluarga Sehat Sugio pharmacy store and Fa Mitra Pucuk pharmacy store with an increasing the number of drugs during the COVID-19 pandemic. The difference in sales is because people prefer to do self-medication by buying drugs at pharmacy store.

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