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Best Practices of Pharmaceutical Services at the Primary Health Center in Samarinda City-East Kalimantan Province

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ABSTRACT

Primary health centers are government-owned first-level health care facilities that play a role in promotive and preventive through individual and public health efforts in their working areas. One type of service at a health center is pharmaceutical services. Pharmaceutical services at primary health centers have two functions, there are drug management and clinical pharmacy services. Pharmaceutical services at primary health centers are carried out in the Pharmacy Room led by a pharmacist. In carrying out both functions, pharmacists at primary health centers refer to the standards of pharmaceutical services at primary health centers as stated in the Regulation of the Minister of Health of the Republic of Indonesia Number 74 of 2016. This study aims to determine the implementation of pharmaceutical services at primary health centers in Samarinda City-East Kalimantan. The research method is descriptive method with quantitative approach. The population of this study were 26 pharmacists of primary health centers in Samarinda City. This study used saturated samples, meaning that all populations were sampled in this study. The data obtained were analyzed and presented descriptively. The results showed that the majority of primary health centers (92%) were non-inpatient health centers, had one pharmacist (85%) and two pharmacy vocational staff (46%). The average number of outpatients served was less than 50 per day (54%). All primary health centers pharmacists have conducted drug management except for the monitoring and evaluation stage of management. Meanwhile, clinical pharmacy activities have been carried out except for monitoring and reporting drug side effects.

Keywords: Pharmacist, Primary Health Centers, Service

INTRODUCTION

Primary health centers are one of the pillars in the transformation of health services in Indonesia launched by the Ministry of Health. One of the services provided at primary health centers is pharmaceutical services. Pharmaceutical services are an integral part of the health care system that aims to improve the quality of life of patients. In Indonesia, pharmaceutical services have evolved from drug oriented to patient oriented by applying the philosophy of Pharmaceutical Care (Hermansyah, Pitaloka, et al., 2018). This development is in line with the demands of a society that is increasingly critical of the quality of health services, including pharmaceutical services at health centers.

Primary health centers have a strategic role in realizing optimal public health status. In this context, pharmaceutical services at primary health centers become very important to ensure the rational, safe, and effective use of drugs(Hermansyah, Sainsbury, et al., 2018). However, the implementation of

quality pharmaceutical services at primary health centers still faces various challenges, especially in regions such as Samarinda City in East Kalimantan.

Samarinda City, as the capital city of East Kalimantan Province, has unique geographic and demographic characteristics. With an area of 718 km² and a population of approximately 827,994 people, Samarinda faces challenges in equitable access to health services, including pharmaceutical services(Samarinda, 2022). Primary health centers in Samarinda City are required to be able to provide quality pharmaceutical services with existing resources and infrastructure. Currently, Samarinda City has 26 health centers consisting of 23 non-inpatient primary health centers and 3 inpatient primary health centers. Meanwhile, the presence of pharmacists in primary health centers in Samarinda City is currently 96.15%, meaning that only 1 health center does not have a pharmacist.

Addressing these challenges requires the identification and implementation of best practices in pharmaceutical services at primary health centers. Best practices can be defined as methods or techniques that consistently show superior results compared to other methods, and can be used as a benchmark(Ng & Luk, 2019). In the context of pharmaceutical services, best practices cover aspects such as pharmaceutical preparation management, clinical pharmacy services, human resources, facilities and infrastructure, and service quality evaluation.

The implementation of best practices in pharmaceutical services at primary health centers has been proven to improve service quality and patient satisfaction. A study in Yogyakarta showed that the implementation of good pharmaceutical service standards can increase patient satisfaction by 87.5%(Supardi et al., 2019). This shows the importance of identifying and implementing best practices that are appropriate to local conditions.

In Samarinda City, efforts to improve the quality of pharmaceutical services at primary health centers have been made through various programs and policies. However, there is no comprehensive study that identifies and analyzes the best practices of pharmaceutical services at primary health centers in this city. This study aims to fill this gap by exploring and documenting best practices in pharmaceutical services at primary health centers in Samarinda City.

The results of this study are expected to make a significant contribution to the development of pharmaceutical services at primary health centers, not only in Samarinda City but also in other regions with similar characteristics. The identification of best practices will enable the formulation of policy recommendations that are more targeted and effective in improving the quality of pharmaceutical services at the primary level. In addition, this study is also expected to serve as a foundation for future studies in the field of pharmaceutical services at primary health centers, especially in areas that have similar geographic and demographic challenges to Samarinda City. Thus, efforts to improve the quality of pharmaceutical services can be carried out more systematically and evidence-based.

METHODS

The research method used is a descriptive method with a quantitative approach. The population of this study was 26 pharmacists at health centers in Samarinda City. This study used a saturated sample, meaning that all populations were sampled in this study. The instrument in this study was a questionnaire, which had been tested for validity and reliability with valid and reliable results. This questionnaire was presented online via Google Form, with a filling period starting from February 27 to March 2, 2024. The research data was processed and presented descriptively quantitatively to obtain a general picture of pharmaceutical services at health centers in Samarinda City, East Kalimantan Province.

RESULTS

The results showed that of the 26 primary health centers in Samarinda City, the majority (92%) were non-inpatient primary health centers. Almost all primary health centers (96%) had a pharmacist in the pharmacy room, with most (85%) having one pharmacist. Of the pharmacists at primary health centers in Samarinda City, 48% had been practicing in primary health centers for 0-5 years, and 40% had been practicing in primary health centers for 6-10 years. In terms of pharmacy vocational staff, 46% of primary health centers have 2 pharmacy vocational staff, while 38% have 1 person. The results of the study on the overview of primary health centers and the availability of pharmaceutical resources in detail are presented in Table 1.

The Pharmacy Room at the primary health centers functions in the management of drugs owned by the primary health centers. The management of drugs and consumable medical materials consists of planning, procurement, receipt, storage, distribution, control, recording, reporting, archiving, and monitoring and evaluation.

In terms of planning for the need for drugs and medical consumables, all primary health centers (100%) had a primary health centers' drug formulary that was regularly reviewed and improved every year. Most primary health centers (92%) prepared an annual Drug Requirement Plan and sent it to the Samarinda City District Health Department.

In terms of drug procurement, primary health centers can request and/or procure drugs independently. All primary health centers in Samarinda City (100%) request drugs from the District Health Department, and 15% (4 primary health centers) also procure drugs and consumables independently. There were 19% of primary health centers that served drugs for patients who were referred back.

Table 1. Overview of health centers in Samarinda City, East Kalimantan Province

	Category	Total	Percentage
A	Type of health center		
	Hospitalization	2	8%
	Non-Hospitalization	24	92%
	Total	26	100%
B	Pharmacy Room Supervisor		
	Pharmacist	25	96%
	Pharmacy Vocational Training	1	4%
	Total	26	100%
C	Availability of pharmacists at health centers		
	No Pharmacist	1	4%
	1 Pharmacist	22	85%
	2 Pharmacists	3	12%
	Total	26	100%
D	Pharmacists have been practicing at Puskesmas for as long as		
	0-5 years	12	48%
	6-10 years	10	40%
	11-15 years	3	12%
	Total	25	100%
E	Availability of Pharmacy Vocational Personnel in Health Center		
	1 person TVF	10	38%
	2 people TVF	12	46%
	3 people TVF	2	8%
	4 people TVF	0	0%
	5 people TVF	1	4%
	6 people TVF	1	4%
	Total	26	100%

In terms of receiving drugs and consumables, primary health centers receive a variety of drugs for basic treatment and health program drugs. In terms of funding, these drugs and consumables can come from District Health Department, National Population and Family Planning Agency, independent procurement, or community donations. Ideally, all medicines and consumables would be managed centrally at the pharmacy room of primary health centers. However, not all primary health centers in

the Samarinda city have conducted one-stop storage of drugs and consumables in the Pharmacy Room. Total of 54% of primary health centers manage vaccines in the Pharmacy Room, 77% of primary health centers manage contraceptive devices and drugs one gate policy at the Pharmacy Room, and 85% manage processed food for special medical purposes to overcome stunting in children under 5 years of age.

Primary health center is a government-owned health service that is regionally based. In carrying out its functions, the primary health center is assisted by its network and networks. The primary health center network consists of auxiliary health centers, village health centers, and mobile health centers. The primary health center's networks obtain drugs and consumable medical materials from the main. Primary health center through a distribution system. All The primary health center in Samarinda City distribute medicine to primary health center's networks.

In terms of recording and reporting, there are various drug management information systems created by the Ministry of Health that must be run by pharmacists at primary health center. These include the Electronic Logistics Information Management System (Smile), the Information System for Monitoring and Guidance of Pharmaceutical Service Facilities (Simona), and the Electronic System for Pharmaceutical Management and Services (Selena). Pharmacists at primary health center in Samarinda City already have a "Smile" account. This account is useful for registering and reporting vaccine logistics at the primary health center. Not only have "Smile" accounts, pharmacists at primary health center in Samarinda City have also utilized the "Smile" application for recording and reporting vaccines in real time at primary health center. Reporting on drug management and clinical pharmacy services at primary health center in Samarinda City has been carried out through the "Simona" application. Reporting through "Simona" facilitates tiered supervision starting from the level of the District Health Department, Provincial Health Department, to the Ministry of Health of the Republic of Indonesia. In addition to "Simona", there is the "Selena" application for monitoring the availability of drugs and vaccine indicators. All persons in charge of the pharmacy room at District Health Department in the Samarinda city also report through the "Selena" application regularly every month. The management of drugs and medical consumables at District Health Department in the city of Samarinda is presented in Figure 1.

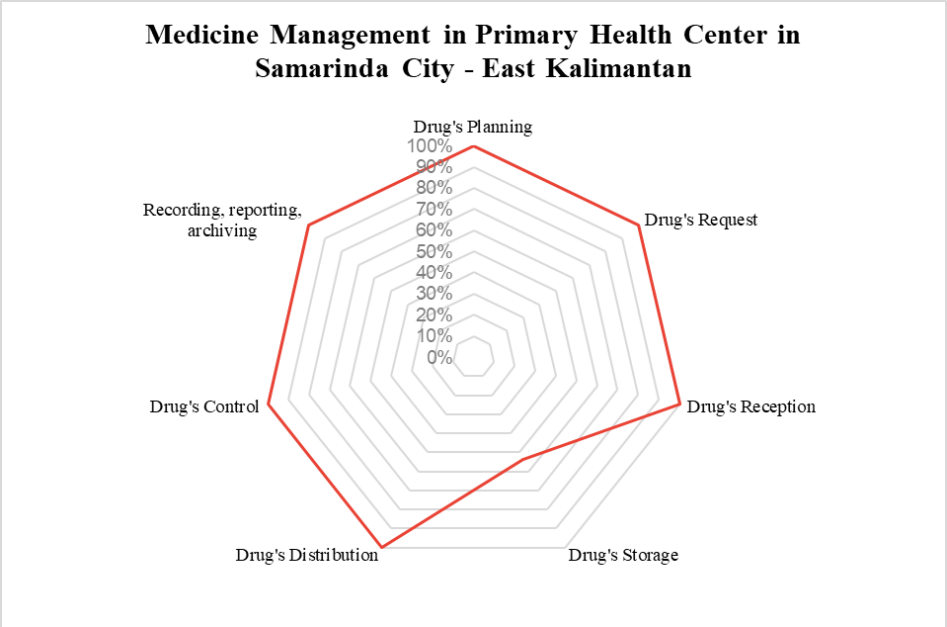

Figure 1. Medicine management at primary health centers in Samarinda City, East Kalimantan Province

In addition to the management of drugs and medical consumables, pharmacists at primary health centers also have obligations in clinical pharmacy services. Clinical pharmacy services at primary health centers consist of assessment and prescription services; drug information services; counseling; patient visits (inpatient only); monitoring drug therapy; evaluating drug use; and monitoring drug side effects.On average, primary health center in Samarinda City served less than 50 prescriptions per day (54%); 51-60 prescriptions (19%); and 61-80 prescriptions (27%). All primary health center

(100%) conducted prescription screening consisting of administrative, pharmaceutical, and clinical screening. The number of prescriptions screened was routinely reported through the "Simona" application.

Pharmacists at primary health center in Samarinda City perform Drug Information Services. Drug information services are carried out in active and passive forms, but the number of drug information services reported by pharmacists at primary health center in Samarinda City through the "Simona" Application is less than 10 activities per month. The obstacle experienced by pharmacists is that they are not orderly in documenting the drug information services that have been carried out.

Pharmaceutical counseling by pharmacists to patients has been carried out by most (96%) pharmacists at primary health center in Samarinda City. The implementation of this counseling has no target from the Ministry of Health. The inpatient in primary health center in Samarinda City, 50% have conducted patient visits by pharmacists.

Evaluation of Drug Use is carried out by all primary health center's pharmacists (100%) through a survey of rational drug use, namely the use of antibiotics in cases of upper respiratory tract infections and cases of non-specific diarrhea. The results of this rational drug use survey are reported monthly through the "Simona" application.

Pharmaceutical service standards at primary health center state that pharmacists should conduct Drug Therapy Monitoring. However, the Ministry of Health does not require reporting on the implementation of this drug therapy monitoring in the "Simona" application. The implementation of Drug Therapy Monitoring at primary health center in Samarinda city was carried out by 4% of pharmacists. As well as monitoring drug therapy, primary health center's pharmacists should also carry out Monitoring of Adverse Drug Events. The results of the adverse drug events are reported to the National drug's side effects monitoring Center as pharmacovigilance data in Indonesia. Reporting of adverse drug events can be done in two ways, namely manually through the drug's side effects monitoring form sent through the Post office. drug's side effects monitoring formulars have been prepared by the National drug's side effects monitoring Center and can be downloaded on its website page. In addition to manually, reporting of adverse drug events can also be done electronically through the website www.e-meso.pom.go.id. Pharmacists at primary health center in Samarinda City as much as 12% have an online drug's side effects monitoring reporting account, but no pharmacists (0%) have conducted drug's side effects monitoring reporting during 2023.

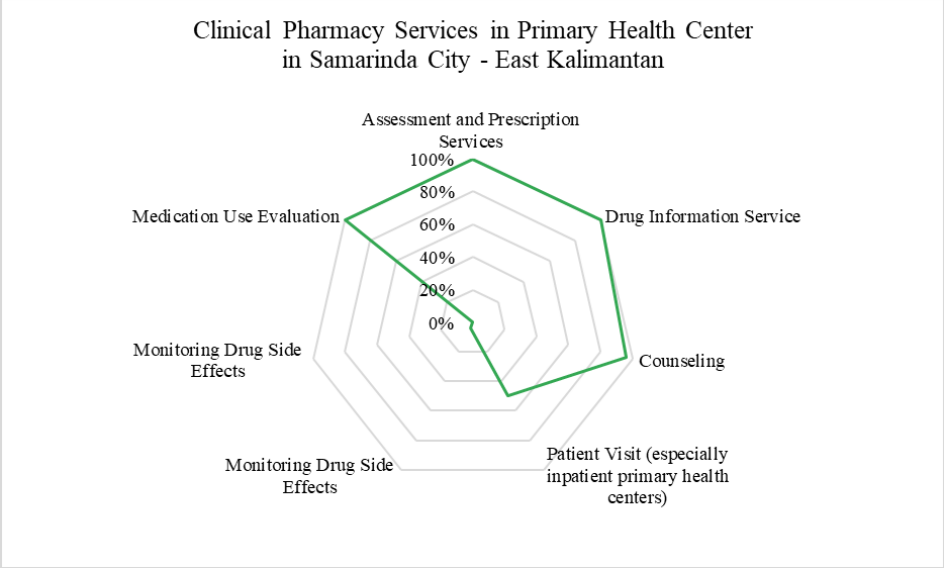

Figure 2. Clinical pharmacy services at primary health centers in Samarinda City, East Kalimantan Province

DISCUSSION

Pharmaceutical services at primary health center have standards issued by the Ministry of Health of the Republic of Indonesia through Minister of Health Regulation Number 74 of 2016(Kementerian Kesehatan RI, 2016) which has been equipped with technical guidelines for the implementation of these service standards(Kemenkes, 2019). The results showed that the majority of

primary health centers in Samarinda City (92%) are non- inpatient primary health centers. This is in line with the national trend where non-inpatient primary health centers are more dominant due to their focus on primary health care and prevention(Asia, 2017). However, the presence of inpatient primary health centers remains important to ensure access to more comprehensive health services, especially in areas with limited access to hospitals(Coombs et al., 2022).

The availability of pharmacists in primary health center in Samarinda City is quite good, with 96% of primary health center having a pharmacist as the person in charge of the pharmacy room. Law Number 17 of 2023 concerning Health emphasizes that pharmaceutical services are performed by pharmacists(Pemerintah Republik Indonesia, 2023). The existence of a pharmacist as the person in charge of the pharmacy room at primary health center in Samarinda City is a positive development for pharmaceutical services at primary health center considering the crucial role of pharmacists in improving the quality of pharmaceutical services(Hermansyah, Pitaloka, et al., 2018). However, there are still challenges in terms of the number of pharmacists, where the majority of primary health center (85%) only have one pharmacist. Previous studies have shown that higher pharmacist ratios correlate with improved pharmaceutical service quality and patient safety(Pratiwi & Rusli, 2018). Pharmacists at primary health center play a role in drug management, clinical pharmacy services, and community education and empowerment(Wiedyaningsih et al., 2018).

In terms of drug management, all primary health centers have a drug formulary that is constantly reviewed and improved. This is a good practice and is in line with WHO recommendations for effective drug management(Asia, 2017). The majority of primary health center (85%) made requests for drugs from the Samarinda City Pharmacy Installation District Health Department and only 15% of primary health center conducted independent procurement of drugs and consumable medical materials. This may be due to budget constraints and regulations, but limited self-procurement can provide flexibility in meeting the specific needs of primary health center(Satibi, Fudholi, et al., 2019).

The storage of medicine and medical materials in the pharmacy room shows variation, with 54% of primary health center managing vaccines, 77% managing contraceptives, and 85% managing processed food for special medical purposes to address stunting in children under 5 years of age. These differences may be due to variations in storage infrastructure and local policies. However, centralized management in the pharmacy room can improve efficiency and quality control(Nurjanah et al., 2020). Improved storage facilities and standardization of procedures can help increase this percentage of centralized management(Putra et al., 2020).

All primary health centers have adopted the electronic information system for drug logistics management namely “Smile”. This is a positive step towards digitizing health services that can improve the efficiency and accuracy of drug management(Pratiwi et al., 2021). This opinion is also in line with research conducted by Saputra et al (2020) which states that the implementation of a drug management information system at the primary health center increases the effectiveness of drug management at the primary health center(Saputra et al., 2020). Apart from Samarinda City, the implementation of a drug management information system has also been implemented at primary health centers in Makassar City and has proven effective(Pratiwi et al., 2021). However, the implementation of the information system must be accompanied by adequate training and technical support to maximize its benefits.

In clinical pharmacy services, all primary health centers conduct prescription screening and drug information services. This shows awareness of the importance of medication safety and patient education(Wibowo et al., 2021). However, only 19% provide medication services for patients who are referred back. Improving this service is important to ensure continuity of care for patients with chronic diseases(Supardi et al., 2019).

Medication counseling was conducted by 96% of primary health center, which is a positive indicator of pharmaceutical care implementation. Counseling has been shown to improve patient compliance and therapeutic outcomes. This is in line with research conducted by Satibi et al (2019) which concluded that evidence-based clinical pharmacy services have an effect on patient compliance in taking medicine(Satibi et al., 2019). Counseling provided by pharmacists to patients shows the role of pharmacists at primary health center in efforts to control chronic diseases at primary health center(Noor et al., 2020).

However, more complex aspects of clinical pharmacy services such as drug therapy monitoring and drug’s side effects monitoring still need to be improved. Only 4% of health centers conducted drug

therapy monitoring and none reported drug's side effects monitoring during 2023. Improvement in this aspect is crucial to improve medication safety and quality of care.

Drug use evaluation was conducted by all primary health centers, indicating awareness of the importance of rational drug use. However, the effectiveness of Drug use evaluation needs to be further evaluated to ascertain its impact on prescribing patterns and patient outcomes.

Overall, the results of the study show that pharmaceutical services in primary health center in Samarinda City have achieved the basic standards in many aspects, especially in drug management and basic clinical pharmacy services. However, there is still room for improvement, especially in the more complex aspects of clinical pharmacy services and the utilization of information technology. Increasing the number and competence of pharmacists, developing infrastructure, and strengthening policies that support evidence-based pharmaceutical practice will be key in improving the quality of pharmaceutical services in primary health center(Hermansyah, Pitaloka, et al., 2018).

CONCLUSION

Based on the results of the study, it can be concluded that pharmaceutical services at primary health center in Samarinda City have reached the basic standards in several aspects, but still require improvement in certain areas. The majority of primary health center (92%) are non-inpatient with good pharmacist availability (96%). Drug management meets basic standards, including the use of electronic information systems for logistics management. Clinical pharmacy services such as prescription screening, Drug Information Services, and counseling have been well implemented, but more complex services such as Drug Therapy Monitoring and Drug Side Effect Monitoring still need to be improved. To improve the quality of pharmaceutical services, it is necessary to increase the number and competence of pharmacists, develop infrastructure, standardize procedures, and strengthen policies that support evidence-based pharmaceutical practices.

REFERENCES

Asia, W. H. Organization. R. O. for S.-E. (2017). The Republic of Indonesia Health System Review. Health Systems in Transition. https://apps.who.int/iris/handle/10665/254716

Coombs, N. C., Campbell, D. G., & Caringi, J. (2022). A qualitative study of rural healthcare providers' views of social, cultural, and programmatic barriers to healthcare access. BMC, 22, 438. https://doi.org/10.1186/s12913-022-07829-2

Hermansyah, A., Pitaloka, D., Sainsbury, E., & Krass, I. (2018). Prioritizing recommendations to advance community pharmacy practice. Research in Social and Administrative Pharmacy, 14(12), 1147–1156. https://doi.org/10.1016/j.sapharm.2018.02.003

Hermansyah, A., Sainsbury, E., & Krass, I. (2018). Community pharmacy and emerging public health initiatives in developing Southeast Asian countries: a systematic review. Health & Social Care in the Community, 26(2), 180–194. https://doi.org/10.1111/hsc.12289

Kemenkes. (2019). Petunjuk Teknis Standar Pelayanan Kefarmasian di Puskesmas. In Kementerian Kesehatan Republik Indonesia.

Kementerian Kesehatan RI. (2016). Peraturan Menteri Kesehatan Nomor 74 Tahun 2016 Tentang Standar Pelayanan Kefarmasian di Puskesmas (p. 48).

Ng, J. Y., & Luk, B. H. (2019). Patient satisfaction: Concept analysis in the healthcare context. Patient Education and Counseling, 102(4), 790–796. https://doi.org/10.1016/j.pec.2018.11.013

Noor, W., Ismail, A., & Kusuma, A. T. (2020). Peran Apoteker dalam Program Pengendalian Penyakit Kronis di Puskesmas. Jurnal Farmasi Dan Ilmu Kefarmasian Indonesia, 7(2), 118–126.

Nurjanah, S., Maramis, F. R. R., & Engkeng, S. (2020). Analisis Peran Pemerintah Daerah dalam Peningkatan Kualitas Pelayanan Kefarmasian di Puskesmas. Jurnal Kesmas, 9(1), 106–114.

Pemerintah Republik Indonesia. (2023). Undang-Undang Nomor 17 Tahun 2023 Tentang Kesehatan.

Pratiwi, R. D., Puspitasari, I., & Kusumawardani, N. (2021). Efektivitas Penerapan Sistem Informasi Manajemen Obat di Puskesmas Kota Makassar. Jurnal Manajemen Dan Pelayanan Farmasi, 11(2), 89–98.

Pratiwi, R. D., & Rusli, R. (2018). Best Practices dalam Pelayanan Kefarmasian: Sebuah Tinjauan Sistematis. Jurnal Farmasi Dan Ilmu Kefarmasian Indonesia, 5(2), 65–72.

Putra, D. P., Citraningtyas, G., & Simbala, H. (2020). Analisis Pelaksanaan Standar Pelayanan Kefarmasian di Puskesmas Kota Manado. Pharmacon, 9(1), 77–85.

Samarinda, D. K. K. (2022). Profil Kesehatan Kota Samarinda Tahun 2021.

Saputra, Y., Mardiati, N., & Fitria, E. (2020). Efektivitas Penerapan Sistem Informasi Manajemen Obat di Puskesmas. Jurnal Manajemen Informasi Kesehatan Indonesia, 8(1), 31–38.

Satibi, S., Fudholi, A., & Puspandari, D. A. (2019). Peningkatan Kualitas Pelayanan Kefarmasian di Puskesmas: Strategi dan Implementasi. Jurnal Manajemen Dan Pelayanan Farmasi, 9(3), 167–176.

Satibi, S., Rokhman, M. R., & Aditama, H. (2019). Pengaruh Penerapan Pelayanan Farmasi Klinik Berbasis Bukti terhadap Kepatuhan Pasien. Jurnal Manajemen Dan Pelayanan Farmasi, 9(2), 112–120.

Supardi, S., Raharni, R., Susyanty, A. L., & Herman, M. J. (2019). The Evaluation of Pharmacy Services at Community Health Centers in the National Health Insurance Era. Media Penelitian Dan Pengembangan Kesehatan, 29(2), 99–110. https://doi.org/10.22435/mpk.v29i2.1286

Wibowo, Y., Sari, I. P., & Galistiani, G. F. (2021). Pengembangan dan Evaluasi Program Edukasi Pasien di Puskesmas. Jurnal Farmasi Klinik Indonesia, 10(1), 46–55.

Wiedyaningsih, C., Sari, I. P., & Artama, W. T. (2018). Peranan Apoteker dalam Pelayanan Kefarmasian di Puskesmas. Jurnal Manajemen Dan Pelayanan Farmasi, 8(3), 131–138.