Implementation of pharmacy service standards clinical pharmacy services based on Pmk no. 74 year 2016 (study on the indonesian pharmacists association kerinci branch)

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ABSTRACT

This study aims to evaluate the extent to which pharmaceutical service standards have been implemented within clinical pharmacy services, particularly within the Indonesian Pharmacists Association Kerinci Branch. The method employed is observational with a cross-sectional design, classified under quantitative descriptive research. Respondents involved in this study are members of the Indonesian Pharmacists Association Kerinci Branch who hold active Pharmacist Practice Licenses (SIPA) and Pharmacist Registration Certificates (STRA) and are willing to participate as respondents in this research.

From the research findings, it was found that Assessment and Prescription Service, Pharmaceutical Information and Orientation, Counseling, Medication Error Surveillance and Overdue Drug Surveillance, and Evaluation of Pharmacotherapy Outcomes met the criteria of "good" with percentages of Assessment and Prescription Service (76.74 %), Pharmaceutical Information and Orientation (75.52%), Counseling (80.65%), Medication Error Surveillance and Overdue Drug Surveillance (81.64%), and Evaluation of Pharmacotherapy Outcomes (89.80%). Meanwhile, the evaluation for Visitation reached a "sufficient" criterion with a percentage of 60.82%. Overall the research results indicate a good level of service (77.61%). Based on the research findings, it is concluded that the implementation of pharmaceutical service standards in the Indonesian Pharmacists Association Kerinci Branch within the realm of clinical pharmacy services has been satisfactory, by the provisions stipulated in Minister of Health Regulation No. 74 of 2016, with a compliance rate of 77.61%. It is recommended for pharmacists to enhance the implementation of pharmaceutical service standards, and to add a description column to the questionnaire to gain a deeper understanding of pharmacy service evaluation.

***Keywords**: Pharmacy Services, Clinical Pharmacy, Pharmacist, Minister of Health Regulation No. 74 of 2016*

INTRODUCTION

In several health centers in Indonesia, there are clinical pharmacy service activities in 30 health centers (23.3%), with only 4 health centers (13.3%) having the presence of pharmacists. The results of the study showed that in general, clinical pharmacy services have met the established standards. However, it was found that several activities, such as visits, counseling, MESO, PTO, and EPO, have not been implemented optimally (Susyanty, et al., 2020).

Previous research conducted in Semarang City in 2018 showed that of the 37 existing health centers, only 16 health centers had a pharmacist present (Pratiwi, et al., 2021). The

role of pharmacists in the context of clinical pharmacy services is very essential. This is because pharmaceutical technical personnel only have limited capacity in implementing pharmaceutical services, which include the management of pharmaceutical preparations and BMHP, as well as prescription services that include drug compounding, drug delivery, and provision of drug information (Ministry of Health, 2016).

The pharmaceutical service standards in the clinical pharmacy sector that have not been implemented the most in Indonesia are aspects of services that should be carried out by pharmacists, especially in terms of counseling and MESO. This situation is caused by the lack of pharmacists available in many health centers. The importance of counseling by pharmacists is clear, especially in the context of increasing patient compliance, such as in patients with type 2 diabetes mellitus, where compliance with drug regimens requires special attention (Fatiha & Sabiti, 2021).

MESO has a strategic role in its potential prevention of drug side effects in patients. The potential for side effects can be caused by various factors, including drug dose, cytotoxic effects in therapeutic doses, formulation changes, physical changes in drugs, and drugs with a narrow therapeutic index. In addition, factors originating from patient conditions, such as age, genetics, gender, comorbidities, hypersensitivity levels, general patient conditions, as well as concurrent drug use (polypharmacy) and drug administration methods, contribute to the complexity of the risk of drug side effects (Murni, et al., 2020).

Based on the description that has been described, the researcher has the desire to conduct research related to the implementation of Pharmaceutical Service Standards in the realm of clinical pharmacy services at the Indonesian Pharmacists Association, Kerinci Branch, in order to evaluate the extent to which its implementation has been effective.

LITERATURE REVIEW

Services in the Pharmaceutical Sector

Pharmaceutical services refer to a series of activities aimed at identifying, preventing, and resolving problems related to pharmaceutical preparations and health aspects. The traditional drug-oriented paradigm has evolved into a patient-oriented one, with the concept of pharmaceutical services. This change emerged in response to demands received from the community and patients for services that are more focused on individual needs (Oktaviani, 2021).

Concept of Health Center

Community Health Center (Puskesmas) is a health service facility that coordinates various community health initiatives and individual services at the basic level. The main focus of the Puskesmas is on promotive and preventive efforts, with higher priority given to these aspects within its working area (Kemenkes, 2016).

The health center has responsibilities and duties that focus on holistic development, with an emphasis on health aspects and the application of regional concepts. Health center coordination involves cross-sector collaboration, including the implementation of the School Health Effort (UKS) program in educational environments to improve student health. In addition, health centers also play a role in providing counseling to farmers regarding the use of pesticides or organic fertilizers appropriately, to prevent the risk of disease that may arise. Empowerment through Family Welfare Supervisors (PKK) at the sub-district and village levels is also realized through Posyandu and Posbindu PTM activities, which aim to foster families to achieve optimal health levels (Sulaiman, 2020).

Pharmacist

The presence of pharmacists in the Health Center has a significant role in the implementation of drug policies, with the aim of strengthening the basis of rational drug policies. The presence of these pharmacists supports improving the quality of pharmaceutical services and expanding the range of services provided (Robiyanto, et al., 2019).

A pharmacist has the responsibility to ensure that drug-related goods or services reach patients in accordance with pharmaceutical service standards stipulated in the legislation. In the context of drug services, pharmacists play an important role that includes prescription services, dispensing, counseling, Individual Drug Observation (PIO), Drug Therapy Monitoring (PTO), and Drug Side Effect Management (MESO). In addition, to carry out these main tasks and functions at the Health Center, pharmacists are required to hold a Pharmacist Practice License (SIPA) (Dhananjaya & Tjiang, 2020).

Drug Information Service (PIO)

Drug Information Provision (DIP) refers to services provided by pharmacists to health workers and patients with the aim of providing up-to-date, clear, and accurate information. One of the main focuses of DIP is to provide relevant information to support the policy-making process related to pharmaceutical preparations. In addition, this service also aims to ensure rational use of drugs, in accordance with the principles of appropriate pharmacotherapy (Ministry of Health, 2016).

Drug Therapy Services (DTP)

Drug Therapy (OT) Assessment is an activity carried out with the aim of ensuring that a patient receives drug therapy that is not only affordable, but also effective, with minimal side effects, and maximum efficacy. The TOT evaluation is carried out based on certain criteria, such as in geriatric and pediatric patients, patients receiving duplicate treatments, breastfeeding and pregnant mothers, patients using drugs with high potential side effects, patients with kidney and liver disorders, and patients using drugs with a narrow therapeutic index (Ministry of Health, 2016).

METHODS

The type of research methodology applied is observational with a cross-sectional design. This research was conducted at the Indonesian Pharmacists Association, Kerinci Branch. The research period lasted for 2 months from December 2023 to January 2024. The population refers to the total number of subjects who are the focus of the research. In this study, the population consisted of 98 pharmacists who were members of the Indonesian Pharmacists Association, Kerinci Branch. The data collection tool used in this study was a questionnaire. The research questionnaire covered aspects of the characteristics of pharmacists, health centers, and questions related to the implementation of pharmaceutical service standards in health centers based on the Minister of Health Regulation (PMK) No. 74 of 2016.

RESULTS AND DISCUSSION

Prescription Assessment and Service

Based on the research results, the prescription assessment and service activities have been proven to have been implemented in accordance with the provisions stipulated in the Regulation of the Minister of Health No. 74 of 2016, reaching a percentage of 76.74% and categorized as good implementation. Prescription assessment involves evaluation of administrative, pharmaceutical, and clinical aspects. Furthermore, at the prescription service stage, actions involve preparing drugs according to the prescription, the process of compounding drugs if necessary, providing labels/labels on the packaging, and submitting drug preparations with complete information and documentation.

This finding is consistent with the results of previous studies in health centers, where prescription reviews were conducted by considering patient identity such as name, weight, age, and address. In addition, special attention was given to the dose, method of administration, and time of administration. Other factors such as polypharmacy and potential drug interactions were also considered (Mardiana, et al., 2021). The implication is that the application of these principles in clinical pharmacy practice can support the safety and effectiveness of pharmaceutical services.

Prescription review is an initiative to analyze potential drug-related problems. When a problem is encountered, the pharmacist has the responsibility to communicate it to the prescribing physician and to request a consultation. The success of the therapy process can be disrupted by the presence of drug-related problems (Nursetiani & Halimah, 2020). Therefore, the government has set operational standards for implementing prescription reviews with the aim of ensuring that this process is carried out consistently and in accordance with applicable pharmaceutical principles.

Drug Information Services

Based on the research results, Drug Information Counseling (PIO) activities have been implemented in accordance with the provisions stipulated in the Regulation of the Minister of Health No. 74 of 2016, reaching a percentage of 75.52%, and categorized as good implementation. In the implementation of PIO, information is conveyed to patients both passively and proactively. The method of delivering information involves direct interaction, such as face-to-face meetings, telephone, or letters. In addition, this activity includes the creation of various informative media, such as bulletins, leaflets, brochures, labels, posters, and wall magazines. Furthermore, PIO involves counseling, training, and research activities. Previous studies have shown that PIO is a service activity carried out by pharmacists to fellow pharmacists, health workers, and patients, with the aim of conveying up-to-date, clear, and accurate information. In some health care facilities, especially those with limited pharmacists, PIO is still carried out by pharmaceutical technical personnel due to limited resources. However, the Regulation of the Minister of Health of the Republic of Indonesia in 2016 provides authority for other health workers, who are assigned by the head of the health service, to carry out PIO activities as part of limited pharmaceutical services. This is considered an important contribution in ensuring the smooth running of pharmaceutical services in health centers (Minister of Health of the Republic of Indonesia, 2016).

Counseling

Based on the research results, counseling activities have been successfully implemented in accordance with the provisions stipulated in the Regulation of the Minister of Health No. 74 of 2016, reaching a percentage of 80.65% and categorized as good implementation. The counseling process involves various methods, including the use of open-ended questions, demonstrations and explanations of how to use drugs, final verification of patient understanding, and careful documentation. In addition, counseling is

also carried out specifically according to certain criteria, in a special room with the use of patient cards, and even involving homecare practices.

Although counseling activities have generally been implemented well, findings from the study showed that a number of pharmacists chose options other than "always" and "often" related to the implementation of counseling in a special room and home visits. This may be due to time and energy constraints, especially since the drug planning process to patient care is managed by pharmaceutical personnel (Hanggara, et al., 2017). The implication is that increased efficiency and resource allocation may be needed to ensure optimal implementation of counseling activities.

Visit

Considering the results obtained for this activity, it was found that the percentage reached 60.82%, and its qualifications were included in the sufficient category. This phenomenon arose due to several factors that could influence the results, including the decrease in the qualification of the activity into the less category, allegedly caused by a number of factors. These factors may involve resource constraints, time constraints, or even a lack of awareness of the importance of the activity among the implementers. An in-depth analysis of the variables and conditions that influence the results can provide more detailed insights for the improvement and enhancement of the implementation of the activity in the future.

Monitoring of Drug Side Effects

Based on the research results, the implementation of activities related to Drug Side Effects Monitoring has been successfully implemented in accordance with the provisions of the Regulation of the Minister of Health of the Republic of Indonesia No. 74 of 2016, with a percentage achievement reaching 81.64% and categorized as good implementation. This success can be attributed to the large number of pharmacists who are actively involved in this activity, especially related to filling out the Drug Side Effects Monitoring form and reporting to the MESO Center.

In practice, MESO is performed on drugs and patients that have a high potential for experiencing side effects. This procedure involves filling out the MESO form and reporting it to the National MESO Center. The main goal is to detect side effects of drugs as early as possible, as well as to determine the frequency of occurrence of side effects that have been frequently reported or have just been discovered. This finding is consistent with previous studies, which underline that the implementation of MESO supports the evaluation of drug safety, quality, and efficacy aspects to be maintained (Rasdianah & Hiola, 2022).

However, there are some pharmacists who have not been involved in this activity, citing limited facilities such as MESO forms. These factors are consistent with previous research findings, which indicate that limitations in implementing MESO are caused by limited availability of forms and less than optimal collaboration with other health teams (Dianita, et al., 2017). In addition, low participation in MESO can also be caused by a lack of reporting from patients who experience side effects of drugs (Rasdianah & Hiola, 2022). An in-depth analysis of these barriers can provide the insights needed to improve participation and effectiveness of MESO implementation in pharmacist practice environments.

Drug Therapy Monitoring

From the results of this study, the Drug Therapy Monitoring (DMT) activity has been proven to have been implemented in line with the provisions stipulated in the Regulation of

the Minister of Health of the Republic of Indonesia No. 74 of 2016, with a percentage achievement of 73.47% and categorized as good implementation. DMT involves the process of selecting patients based on certain criteria, making initial notes, introducing oneself to patients, providing comprehensive explanations, collecting relevant data, evaluating, and finally providing appropriate recommendations to patients.

This finding is in line with the results of previous research by Dianita (2017), which showed that PTO was carried out for patients with special criteria, such as pediatrics, geriatrics, polypharmacy, pregnant and lactating mothers, patients with narrow index therapy, and patients with impaired kidney and liver function. PTO is directed to ensure that patients receive therapy that is not only affordable and effective, but can also minimize side effects and maximize the efficacy of the therapy provided. Good implementation of PTO activities can have a positive impact on the quality of clinical pharmacy services and overall patient health.

Evaluation of Drug Use

From the results of this study, it can be concluded that the implementation of the Drug Use Evaluation has been successfully implemented in accordance with the provisions stated in the Regulation of the Minister of Health of the Republic of Indonesia No. 74 of 2016, with a percentage achievement reaching 89.8% and categorized as good implementation. Drug use evaluation is carried out systematically to ensure that drug use is in accordance with indications, effective, safe, and affordable. This evaluation process is carried out periodically to monitor overall drug use patterns and provide in-depth evaluations for specific cases.

For example, previous research by Rasdianah & Hiola (2022) showed that drug use evaluations are often carried out in a limited manner, especially in patients with certain health conditions such as Tuberculosis (TB), diabetes, and hypertension.

However, this study has limitations, namely the lack of exploration of the reasons behind each answer given by respondents. This is because this study focuses more on analyzing the level of implementation quantitatively from the pharmacist's perspective. Further research is recommended to add a description column to each implementation section to explain why respondents chose certain answers. The descriptive data can be a guide for a more in-depth analysis of the research results.

CONCLUSION

1. The results of the study stated that the implementation of pharmaceutical service standards at the Indonesian Pharmacists Association, Kerinci Branch, especially in the aspect of clinical pharmacy services, can be concluded as a good implementation in accordance with the provisions contained in the Regulation of the Minister of Health of the Republic of Indonesia Number 74 of 2016. The percentage of achievement reached 77.61%, which is categorized as good.
2. Several aspects of this study showed a “sufficient” assessment, especially in the “Visite” dimension because there is still room for improvement and enhancement. Certain factors that influence this assessment can be further investigated to understand the obstacles or constraints that may be faced in implementing the “Visite” activity. Thus, strategic steps can be taken to improve the effectiveness and efficiency of these aspects within the framework of pharmaceutical service standards.

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Through the results of this study, it is desired that there will be a significant increase in the implementation of pharmaceutical service standards, especially in the clinical pharmacy sector. The questionnaire has the potential to be improved by adding a description column to each implementation sector, aiming to dig deeper into the answers from respondents.

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