The Quality of Prescription Service and Satisfaction Level at Pharmaceutical Installation of X Hospital

Lutfiya and Budi Firdaus Darmasila

Faculty of Pharmacy, Universitas 17 Agustus 1945, Jakarta, Indonesia

Keywords: Quality of Prescription Service, Satisfaction Level, Hospital.

Abstract: The Pharmacy Installation is a place where pharmacy services are carried out, both management of pharmacy preparations and clinical pharmacy services. Its main function is to administrate, coordinate, manage, and supervise all forms of pharmacy service activities. The purpose of this study is to determine the quality of prescription services and the level of satisfaction of outpatients at Hospital X and to determine the relationship between the two variables. The research method is descriptive research conducted using a cross-sectional research design with a sample of 156 prescriptions. Then, to assess the level of satisfaction, the data was collected from the respondents. 156 patients who will redeem prescriptions using a questionnaire sheet. The results of the prescription service quality category showed a score of 99.6, which was classified in the range of 68-100 in the very good category. Then, for the results of patient satisfaction, showing a satisfied score of 142 respondents (91.0%), showing a very high satisfaction level.

1   INTRODUCTION

In Indonesia, health efforts are supported by several facilities such as hospitals. To support good health efforts, hospitals are required to have good pharmacy services in accordance with existing qualification standards. Standards in hospitals that are complete in accordance with the demands of hospitals and patients (The Health Ministry of the Republic of Indonesia, Permenkes, 2016). At present, pharmacy services are an integrated part of the health care system in hospitals that have the orientation of providing the best service for all patients, providing quality pharmaceuticals, medical devices, and disposable medical devices that can be reached by various community groups, including pharmacy services in clinics (The Health Ministry Regulation of the Republic of Indonesia, Permenkes, 2016). Providing medicines at the complex is required to pay attention to that medicines are always available at the pharmacy that have the best quality, efficacious, safe, and certain based on the mandate of Law UU No. 44 of 2009 on Hospitals and implemented according to the pharmacy service standards. Furthermore, in the Minister of Health of the Republic of Indonesia No. 72, (2016) concerning Standards for Pharmacy Services in Hospitals that are issued, including

management of medicine supplies and consumable medical devices, clinical pharmacy devices, and supervision of consumable medical devices and medicines used by complex parties, Setting standards in pharmacy services in hospitals is used to: Encouraging improvements in pharmacy services in hospitals Ensuring that pharmacy personnel get the right license from the right agent Provide protection and certainty for patients to get appropriate medicine and pay attention to patient safety. Standards are used for pharmacy services in hospitals, which include the management of supplies of medicines, medical consumables, and medical devices. Prescription services are one of the various pharmacy services provided by pharmacists to improve health services for patients in hospitals. Pharmacy services are services provided to patients and have direct responsibility for patients directly related to the provision of medicines and pharmacies in order to obtain optimal results to improve the patient's quality of life. This service is supported by competent work staff on their part, because patients must be treated by the right staff. The quality of prescription services is one indicator that correlates with the quality of health services. In addition, there is also a study conducted by Wiyono in 2016 which revealed that there is a relationship between service quality and customer satisfaction. The Hospital Pharmacy Service

Standards as stated in the Hospital Service Standards are within the basic scope. Therefore, in order to support the hospital in implementing the Hospital Service Standards, it is necessary to develop a comprehensive Hospital Pharmacy Service Standard based on the needs of patients and hospitals. Management of pharmacy supplies and medical devices is a stage and flow of activities that begins with procurement planning, production, or procurement, receipt, distribution, supervision, storage, disposal supervision, reporting, administration, and evaluation needed in carrying out health service activities. The purpose is to ensure that all medical devices and medicines are still available and do not run out of stock, have sufficient quantities in accordance with the specified specifications, and have proper functions by the management of the pharmacy department so that they can be used efficiently and effectively in pharmacy services. A satisfied score will be created if the expectations of a patient can be met by the services provided by the hospital. Therefore, it is necessary to observe and periodically evaluate the satisfaction and expectations of the patient. The word "satisfaction" comes from the words "static," which means "quite good, adequate," and "facio," which means "does or makes. Consumer satisfaction is the level of one individual's feelings after making comparisons (results) obtained compared to their expectations. The X Hospital is a type C general hospital with 15 pharmacy staff, meaning there are 15 pharmacy staff. 1 pharmacist as the installation's head; 1 pharmacist in outpatient assisted by 6 pharmacy technician; 1 pharmacist inpatient assisted by 5 pharmacy technician; and 1 pharmacist as production coordinator. 6 supporting staff exclude 15 pharmacy staff who have a high school background, D3 Nursing, Bachelor of Mathematics or physiotherapy for supporting activities outside the pharmacy installation but still have a relationship with the pharmacy installation. Based on several explanations that have been described in the background, the researcher makes the title "Quality of Prescription Services and Patient Satisfaction Levels" to find out whether the quality of service at X hospital has a relationship with the level of patient satisfaction.

2 METHODS

2.1 Research Method

This research method is a cross-sectional study. In this study, data collection was carried out using a completed questionnaire. The filling out of the questionnaire is carried out offline by distributing the questionnaire form directly to respondents at the Pharmacy Installation of Hospital X.

2.2 Ethical Approval

The Ethics Committee has approved this research for health research at the University of August 17, 1945, Jakarta, based on the certificate of ethical feasibility (Ethical Clearance) with the number: No.32/KEPK-UTA45JKT/EC/EXE/05/2022.

2.3 Population and Sample

The population in this study was all patients who visited for treatment at Hospital X. In this research, there are 2 kinds of sample criteria, namely inclusion and exclusion criteria. The data was taken using the population from Hospital X, which was set for the total sample in this study to be 156 samples. The inclusion criteria are outpatients and their prescriptions (male and female) aged > 17 years. Inclusion criteria are criteria where the research subject represents research samples that meet the requirements as a sample. The respondent's age is at least 17 years because, according to Hurlock's statement, 17 years is an adult age and has been considered a legal adult, and it is stated that at 17 years old, people have self-identity because, at that age, society is considered responsible for itself (Hurlock, 2006). Exclusion criteria are criteria where the research subject cannot represent the sample because it does not meet the requirements. Research sample, as well as ethical obstacles, such as refusing to be a respondent or a situation where it is not possible to do research. As stated by Yuliani (2017), some patients may have a high risk of being in the study. So, for the exclusion criteria, there are outpatients (male and female) aged <17 years, pregnant patients, lupus, HIV/AIDS, and Covid-19, and there were no exclusion criteria for prescriptions.

2.4 Variable Score Calculation

Calculation The quality of prescription service was scored using a questionnaire. Questionnaire The quality of prescription service is calculated from a number of variables, and each variable has a score calculation, and that variable are:

- **Check the patient's name and identity.** A total score of 10 is taken when checking the patient's name and identity. If not, the score is 5.

- **Screening**. A total score of 10 is taken when screening is carried out. If not, the score is 5.
- **Counseling**. A total score of 10 is taken when counseling is carried out. If not, the score is 5.
- **Fulfillment of the number of medicines submitted according to the prescription.** A total score of 10 is taken when the fulfillment of the number of medicines submitted is in accordance with the prescription given. If not, the score is 5.
- **Completeness of the type of medicine that is submitted according to the prescription**. A total score of 10 will be obtained when the completeness of the type of medicine submitted is according to the prescription given. If not, the score is 5.
- Is there a medicine substitute? A total score of 10 is taken when there is no change in medicine. If not, the score is 5.
- **Writing Complete Prescriptions Labels**. The total score here is determined by writing the complete label. A score of 1 will be given when specifying the instructions for use; a score of 2 will be given when specifying the instructions for use and the patient's name; a score of 3 will be given when including the patient's name, instructions for use, and other precautions/warnings; a score of 4 will be given when including the patient's name, rules and regulations. Other cautions and the date A score of 5 will be given when including the patient's name, instructions for use, method of use, other warnings, date, and serial number of the prescription. Here, the value of 5 is a perfect score because the writing of the label is done in full.
- **Medication preparation time:** The total score here is determined from the time of medicine preparation. For finished medicine, if the preparation is done right within 15 minutes, it will get a value of 2. If it takes >15 minutes, it will get a value of 1. For compounding medicine, if the preparation is done right within 30 minutes, it will get a value of 3. If it takes >30 minutes, it will get a value of 2. If in one prescription there is only finished medicine, then if the preparation is done right within 15 minutes, it will get a value of 5. If it takes >15 minutes, it will get a value of 4. Conversely, if in one recipe there is only concoction medicine, then if the preparation is done within 30 minutes, it will get a value of 5, and if >30 minutes, it will get a value of 4. The total perfect score is 5, and is

obtained when the time of medicine preparation is in accordance with the specified time.
- **Final check.** A total score of 10 is taken when the final check is carried out. If not, the score is 5.
- **Documentation.** A total score of 10 is taken when the documentation is done. If not, the score is 5.
- **Recipe work is carried out according to the protocol.** A total score of 10 is taken when the recipe is carried out according to the applicable protocol. If not, the score is 5.

In these variables, it can be seen 1 result of the calculation of the prescription service quality score, where this questionnaire has been distributed to a number of respondents. The Category of Prescription Service Quality explained in table 1.

Table 1: Category of Prescription Service Quality.

Score	Category
(0-33)	Poor
(34-67)	Good
(68-100)	Excellent

A questionnaire was also used to assess the satisfaction level at X Hospital's pharmacy installation. The questionnaire that was distributed to patients consisted of 11 questions, where the method of assessment for each question was by assigning a value to each answer choice based on the Lickert scale. And the weight value given in one question has been explained in table 2. The Satisfaction Level at Pharmacy Installation has been explained in table 3.

Table 2: The way of measuring variables is based on the *lickert* scale.

Reality	weight value
Very satisfied	4
Quite satisfied	3
Less satisfied	2
Not satisfied	1

Table 3: The Satisfaction Level Category at Pharmacy Installation.

Score	Category
1 (0-14)	Not satisfied
2 (15-29)	Satisfied
3 (30-44)	Very Satisfied

The results of these questionnaires that have been obtained were processed with SPSS software using the Chi Square test, and the relationship between the

quality of prescription services and the level of satisfaction at the Pharmacy Installation of X Hospital was determined by running a correlation analysis test with SPSS software.

3 RESULT AND DISCUSSION

The results of this study describe how the quality of prescription services will be measured by filling out a data collection table by a researcher based on a predetermined assessment weight, including checking the patient's name, identity of the patient concerned, screening, counseling, fulfilling and providing medicines according to the prescription given, ensuring the completeness of medicine, checking if needed for medicine substitution, writing labels, when preparing medicine, final checks, making documentation or notes, and prescriptions are carried out in stages according to procedures and provisions. When the 11 variables above are done correctly, a value of 100 will be obtained for 1 medicine prescription. The percentage of patients who have checked the names and identities of their patients is 100%. These results show that checking the patient's name and identity is a mandatory procedure that has been implemented in the Pharmacy Installation of X Hospital. The activity of checking the patient's name and identity is an important part that should not be ignored because the number of patients is very large when paying for prescriptions and there is a lot of risk that prescriptions can be misrepresented by both the pharmacy and the patient. The percentage of carried out screening activities is 100%. Prescription screening activities are carried out by expert pharmacy staff to avoid medication errors. The percentage of the number of medicines delivered according to the prescription is 100%. X hospital has a pharmacy installation with a fairly good completeness of medicine. The stock of medicine in the pharmacy installation of hospital x is quite complete, because according to one of the reference journals entitled Overview of the Causes of Emptiness of Patent Medicine Stocks and Control of Its Efforts in the Medical Warehouse of the Pharmacy Installation of the Bekasi City Hospital in the First Quarter of 2015 (Wulansari, 2015), the Bekasi City Hospital gave many medicines that were not in accordance with the prescription because the Bekasi City Hospital Pharmacy installation had a limited stock of medicine. The percentage stock of medicine is 100%. This is because X Hospital has a pharmacy installation with a sufficient amount of medicine; therefore, the percentage of types of medicine given

is always in accordance with the prescription given by the patient. The stock of medicine that was given to patients according to prescriptions is 100%. The percentage of the stock of medicine that has been given is always in accordance with the prescription given to the patient. The measurement of the percentage of the label is to look at several parameters of the label, such as the completeness of the prescription number, the date, the name of the patient, the administration, and, of course, how to use it. Like the indication and the usage, the value of each parameter item is a minimum of 1 and a maximum of 5. A value of 1 is obtained when only administration is on the label. Score 2 is obtained when it includes administration and the patient's name. Score 3 is obtained when administration, as well as the name of the patient and the usage of other warnings, are included. Score 4 is obtained when the administration, patient's name, the indications and warnings, and date are included. Score 5 is obtained when the instructions for use, patient's name, the indications and warnings, date, and serial number of the prescription are included. The total percentage of label scores 1 is 0%, scores 2 and 3 are 0%, score 4 is 0% with a sample of 0 prescriptions, and score 5 is 100% with a sample of 156 medical prescriptions. The Pharmacy Installation of X Hospital did the writing of labels with fairly clear parameters, where the number on the prescription was written, as well as the date the prescription was made, the name of the patient, as well as the method and time of medicine use, as well as the use of medicine to reduce the occurrence of errors in medicine administration. This is also done to avoid the risk of medicine swapping and/or patients not knowing what medicine they are taking. In this case, the pharmacy installation of X Hospital is excellent; they always carry out final checks while actively providing labels. Documentation must always be considered and made because it is one of the important elements in pharmacy (The Health Ministry Regulation of the Republic of Indonesia Permenkes, 2016). From these results, it was found that the compounding and dispensing of medicines at the Pharmacy Installation of X hospital was fully carried out according to the Standard Operating Procedure, where all activities were carried out according to the Standard Operating Procedure. The service quality assessment of X Hospital was carried out from the sum of each question item. A different amount will be generated by each item of the questionnaire question. The factor is the level of difficulty and importance of the research data. All scores will be added up and divided by the average, and the result is 98.2, which is

included in the score of 68-100, which means the quality of prescription services is excellent, according to what has been explained in table 1. By summing the values in the questionnaire (Arikunto, 2002), a total score will be obtained from the level of patient satisfaction with prescription services at the Pharmacy Installation of X Hospital. The Pharmacy Installation of X Hospital got an excellent score. This was evidenced by 142 respondents stating that they were very satisfied with the percentage of 91.0%, falling into the score range of 30-44. The result of the satisfaction level at the pharmacy installation is explained in table 4. These results are taken from a questionnaire that has been distributed to respondents who are outpatients at the hospital X.

Table 4: Total patient score data based on variables that affect the level of patient satisfaction with the quality of prescription services at the Pharmacy Installation of X hospital.

Total Score of Patient's Satisfaction	N (156)/%
1(0-14)	0/0%
2(15-29)	14/9.0%
3(30-44)	142/91.0%

The difference between the quality of prescription services and the level of patient satisfaction, the probability value is = 0.000 <0.05.

It can be seen that the value of t count =-316 and sig. (2-tailed) for Prescription Service Quality of 0.000. The significance level is 0.000, so the data is quite significant (0.000<0.05).

It can be seen that the value of t count =-316 and the value of Sig. (2-tailed) for patient's satisfaction is 0.000. The significance level is 0.000, so the data is quite significant (0.000<0.05),

It can be concluded that the probability value here is 0.000 (<0.5), which means that the two variables, namely the Prescription Service Quality and the Satisfaction Level at Pharmacy Installation, have a significant relationship. This is indicated by the quality of prescription services at X hospital, which is categorized as very good and can provide a very high satisfaction rate, namely 142 respondents with a percentage of 91%, and also a satisfied rate, namely 14 respondents with a percentage of 9%. The probability value here is 0.000 (<0.5), which means that the second variable, namely Prescription Service Quality and Patient Satisfaction, has a significant relationship. This is indicated by the quality of prescription services at X hospital, which is categorized as very good and can provide a very high

satisfaction rate, namely 142 respondents with a percentage of 91%, and also a satisfied rate, namely 14 respondents with a percentage of 9%. This is also evidenced by a similar study that I found in the journal Hana Mutiara et al. entitled The Relationship of Service Quality with Patients Participating in BPJS (Social Security Agency of Health) RSUD by Dr. H Abdul Moeloek, (Hana, 2018). The journal proves that there is a good service relationship between a hospital and a patient because the probability value = 0.03 <0.05 which means there is a correlation value between the quality of prescription services and the level of patient satisfaction.

4 CONCLUSIONS

The value of patient satisfaction at hospital x is quite good because the quality of prescription services provided by hospital x is also quite good. which means that the hospital pharmacy installation service is satisfactory.

REFERENCES

Hanna Mutiara and Friends (2018) *Relationship Of Service Quality With BPJS Patients Satisfaction In Internal Medicine Room Of Dr. H Abdul Moeloek*. Lampung: Lampung University

The Health Ministry of Republic of Indonesia, Permenkes (2016) *Regulation of the Minister of Health of the Republic of Indonesia No. 72 of 2016 concerning pharmacy service standards in hospitals*. Jakarta: Ministry of Health of the Republic of Indonesia

A.Wulansari (2015) *Overview of the Causes of Emptiness of Patent Medicine Stocks and Control of Its Efforts in the Medical Warehouse of the Pharmacy Installation of the Bekasi City Hospital in the First Quarter of 2015*. Jakarta: Syarif Hidayatullah State Islamic University Jakarta

The Health Ministry Regulation of the Republic of Indonesia, Permenkes (2017) *Journal of Health Service Research and Development, Vol. 1, No. 1, August 2017*. Jakarta: Center for Research and Development of Health Resources and Services

Research DevelopmentAgency of the Ministry of Health of the Republic of Indonesia Journal of the Indonesian Ministry of Health.(2019) *Technical Guidelines for pharmacy Service Standards in Hospitals*. Jakarta: Ministry of Health RI

Anonymous. 1945. UU Mandate of Law (2009) *Law that concerning Hospital*. State Secretariat. Jakarta.

Drs. Rusli. Sp., FTS. Ap. 2016. "*Hospital and Clinical Pharmacy*" Jakarta: Ministry of Health of the Republic of Indonesia

Wiyono, A. S. (2016). *Studies on service quality and customer satisfaction in Islamic Hospitals* Manisrenggo Klaten (Master Thesis). Muhammadiyah University of Surakarta, Solo, Indonesia. Retrieved from http://eprints.ums.ac.id/6799/

Drs. Rusli. Sp., FTS. apt. (2016) *Hospital and Clinical Pharmacy. Jakarta: Health HR Center*

Susi Novaryatiin, Syahrida Dian Ardhany, & Siti Aliyah (2018), *Level Of Patient Satisfaction With pharmacy Services In Rsud Dr. Murjani Sampit* Palangkaraya: Muhammadiyah University

Husnul Warnida, Sari Putri Pertiwi, Eka Siswanto Syamsul. (2021). *Performance And Quality Of pharmacy Services*. Samarinda: Samarinda Pharmacy Academy

Veronica Dampung. (2018). *Analysis Of Waiting Time For Prescription Services At The Bpjs Output Pharmacies At Pelamonia Hospital Makassar*: Stikes Pelamonia Kesdam VII/Wirabuana

Made Ayu Lely Suratri. (2018). *Patient Satisfaction with Quality of Outpatient Hospital Services in 7 Provinces in Indonesia*. Bali: Indonesian Institute of Health

Kevin Effendi, Stella Junita. (2019). *Level Of Patient Satisfaction With Health Services In Puskesmas Mutiara Year 2019*. North Sumatra: Faculty of Medicine, University of North Sumatra