

# Analysis Of Service Quality Distribution of Drugs and Medical Consumables on Inpatient Patient Satisfaction at The Pharmacy Installation of The Melati Perbaungan General Hospital

BRAHMA TAMA UNSANDY<sup>1</sup>, ERMİ GIRLANG<sup>2</sup>

<sup>1</sup> Master of Law Study Program Faculty of Law Universitas Prima Indonesia Medan, Indonesia

<sup>2</sup> Lecture Master of Law Study Program Faculty of Law Universitas Prima Indonesia Medan, Indonesia

**Abstract-** *The services provided by hospital are divided into two groups, that is the main service and supporting services. The main services consist of medical services, nursing services, and pharmaceutical services. Hospital pharmacy services are a direct and responsible service to patients related to pharmaceutical preparations. Objective: This study aimed to determine the quality-of-service distribution of drugs and medical consumables to the satisfaction of inpatients in the Pharmacy Installation of Perbaungan Hospital in 2019. Method: The study design was analytical cross sectional. The entire population was all inpatient unit patients at Melati Perbaungan General Hospital or their families who come for treatment at the inpatient unit and at the same time buy medicine at the Melati Perbaungan General Hospital pharmacy. The sampling technique used purposive sampling method. Data retrieval research was by interview using a questionnaire. Result: The number of samples of this study amounted to 88 people. The independent variables used are reliability, guarantee, empathy, responsiveness, communication, form of pharmaceutical installation, and pharmaceutical installation access. While the dependent variable is the level of patient satisfaction. Statistical test results obtained a significant relationship between independent and dependent variables. Conclusion: Of all the variables, the reliability variable was the most influential on patient satisfaction ( $p = 0.001$  and  $Exp. B = 94.003$ ).*

## I. INTRODUCTION

There are three types of services that must be provided by hospitals to the community, namely in the form of

plenary services (comprehensive), disease healing (curative) and disease prevention (preventive). The hospital is one of the health facilities that organizes health service activities and can be used for the education of health workers and medical research centers (World Health Organization). A hospital must provide optimal service. Health services require a fast process because they are related to humans, so the faster the service, the better, and vice versa (Vira Rahmayanti, 2017).

In providing services to the community according to the Minister of Health Regulation No. 56 of 2014 concerning Hospital Classification and Licensing, pharmaceutical services are clinical support services that must be owned by every type of hospital. Classification of hospitals, namely General Hospitals Type A, B, C, D. The services provided by the hospital are divided into two groups, namely main services and supporting services. The main services consist of medical services, nursing services, and pharmaceutical services. Hospital pharmacy services are direct and responsible services to patients related to pharmaceutical preparations with the aim of achieving definite results to improve the quality of life of patients (Kemenkes RI, 2014).

The Hospital Pharmacy Installation (IFRS) is a department led by a pharmacist, responsible for the procurement, storage, distribution of drugs, increasing their use in hospitals, as well as providing information and ensuring the quality of services related to drug use. All installations in hospitals coordinate with pharmacy installations that provide medicines and medical devices. So the existence of pharmacy installations in hospitals is very important. This is related to the

functions of the pharmaceutical installation itself, namely: (1) procurement, distribution and supervision of all medicines, (2) evaluation and broad dissemination of information about drugs and their use for hospital staff and patients and (3) monitor and ensure the quality of drug use (Directorate General of Pharmacy and Medical Devices, Ministry of Health RI, 2016).

Pharmaceutical services include the provision and distribution of all pharmaceutical supplies, including the provision of information that can guarantee the quality of services related to drug use, therefore requires fairly strict monitoring activities. Because monitoring is an attempt to monitor or assess the pattern of drug use. The hospital distribution system is a harmonious, integrated and patient-oriented network of facilities, personnel, procedures and quality assurance in the delivery of pharmaceutical supplies and their information to patients. (Febriawati, 2017).

In 2018, The American Society of Health-System Pharmacist (ASHP) conducted a study that aims to analyze the distribution process of drugs and medical devices for inpatients in hospitals, the technology used for drug distribution, drug preparation, and use of drug registers. This study was conducted at 6812 hospitals in America. The results of this study are the increase in distribution time compared to previous years due to increased workloads, demands to reduce costs, shortage of labor including personnel in Pharmacy and Nursing Installations (ASHP, 2018).

McNally (2017) also conducted research in Australian hospitals in analyzing the comparison of the occurrence of medication errors in the use of traditional drug distribution systems and UDD. The results obtained from 6.7-20.7% often occur in non-UDD systems compared to UDD systems, namely 0.5-7.23%.

Raveendran (2016) conducted a study to analyze patient satisfaction with the service of a decentralized drug distribution system in hospitals in South India. Among 800 patients who were interviewed, 585 patients (73.12%) were very satisfied, 204 patients (25.5%) were satisfied and 11 patients (1.37%) were not satisfied with the service.

Rosyidah (2014) conducted a study comparing the use of the UDD and non-UDD systems in the PKUU Muhammadiyah Yogyakarta general hospital against medication errors. From the results of the study by taking 100 medical records consisting of 50 medical records of the UDD ward and 50 medical records of the non-UDD wards, the percentage of medication errors due to drug interactions in the UDD ward was 11.84% and the non-UDD ward was 18.06%. Meanwhile, medication errors due to drug contraindications were obtained in the UDD ward of 0.32% and non-UDD 1.64%. This shows that the use of the UDD drug distribution system has a smaller percentage of medication errors compared to non-UDD. Pujianti (2014) conducted an analysis of the impact of the implementation of the UDD system on the satisfaction of inpatients at Jogja International Hospital (JIH). From this study, it was found that 70-90% of patients were satisfied with the impact of implementing the UDD system.

In addition, in 2009 a study was conducted at the Pharmacy Installation of the Jogja International Hospital regarding drug distribution. It can be concluded that the distribution system in the inpatient unit is a unit dose dispensing system, floorstock, individual prescription and emergency stock. The suitability of the use of the drug distribution system in pharmacy installations has not experienced problems because Jogja International Hospital is still new in operation (Wijayanti et al, 2011).

Based on the results of research at the Pharmacy Installation of the Malingping Hospital, the steps for distributing drugs and medical devices at the Pharmacy Installation of the Malingping Hospital are: requests from the room to the distribution section then distribution recaps requests for drugs and medical devices in the room then requests for distribution to the pharmacy warehouse and from distribution are issued to each room. The distribution mechanism of drugs and medical devices at the Pharmacy Installation of the Malingping Regional General Hospital is generally effective because drugs and medical devices are distributed evenly to meet the needs of patients in need, this is proven by the delivery and receipt of drugs that are always on time, right type and the right amount (Nita et al, 2015).

In addition, in 2013 research was conducted on the Overview of Drug Management Implementation at the Pharmacy Installation of the Medan Haji Hospital. The results of this study are drug procurement often occurs in drug vacancies and the distribution of drugs in the pharmacy installation of the Medan Haji Hospital is not regularly distributed. Based on the results of interviews with the informant, the head of the installation and the head of the pharmacy warehouse at Haji Medan Hospital, it was stated that the distribution of drugs was based on the needs listed in the stock card, where the stock card would later be used to record drug mutations, such as: receipt, expenditure, lost, damaged or expired. (Rahmah, 2013).

## II. RESEARCH METHODS

This research is a cross sectional study conducted at RSU Melati Perbaungan with a population of all patients in the inpatient unit at RSU Melati Perbaungan as many as 734 people and a sample of 88 respondents. To obtain data using a questionnaire and the data obtained were analyzed by bivariate and multivariate analysis.

## III. RESULT AND DISCUSSION

### A. Bivariate Analysis

#### 1. Cross Tabulation Between Pharmacy Installation Officer Reliability and Inpatient Patient Satisfaction

Reliability	Patient Satisfaction				p=0,04
	Satisfied		Not satisfied		
	n	%	n	%	
Enough	27	30.7	6	6.8	
Not enough	5	5.7	50	56.8	

Based on the table above, it is known that of the 33 respondents with sufficient reliability, the majority were satisfied with 27 (30.7%) and found 6 respondents (6.8%) who were dissatisfied, while of the 55 respondents with less reliability, the majority stated dissatisfied as many as 50 (56.8%) and found 5 respondents (5.7%) who are satisfied. Furthermore, from the results of statistical tests obtained p value =  $0.04 < = 0.05$  which indicates that there is a significant

relationship between the reliability of pharmacy installation officers and inpatient satisfaction.

Officer reliability is the patient's perception of the ability of the pharmacy installation staff to provide the promised service accurately and reliably from the first time without making any mistakes and delivering their services according to the agreed time. This dimension relates to the ability to provide services with a sympathetic attitude, timeliness of service, professionalism in serving patient prescriptions and an accurate recording system. Fulfillment of promises in service will reflect the credibility of the pharmacy installation. If the patient feels that the service received from the reliability aspect of the pharmacy installation officer is very good, the number who will buy or redeem the drug will increase, while if the patient feels disappointed with the reliability of the pharmacy installation officer, one form of patient disappointment is deciding not to buy or redeem medicine in that place.

The officer's reliability variable affects patient satisfaction because the patient's family complains that the queue is too long even though the patient's family needs the drug immediately. In addition, patients complain of incomplete drugs available in pharmacies and medical devices such as liquids. For example, a patient needs an RL type infusion fluid (Ringer Lactate) but because the fluid is not available, it is replaced with a NaCL type infusion fluid even though the procedure for treating a disease there is a type of disease that does not match the NaCL infusion fluid but because the stock of infusion fluid needed by the patient is not available, it is replaced with intravenous fluids that are available at that time.

#### 2. Cross Tabulation Between Pharmacy Installation Officer Assurance and Inpatient Patient Satisfaction

Assurance	Patient Satisfaction				p=0,03
	Satisfied		Not satisfied		
	n	%	n	%	
Enough	11	12.5	11	12.5	
Not enough	21	23.9	45	51.1	

Based on the table above, it is known that of the 22 respondents on Assurance officers who were quite satisfied and dissatisfied respectively 11 respondents (12.5%), while of the 66 respondents on Assurance who were not obtained the majority stated that they were not satisfied as much as 45 (51.1%) and found 21 respondents (23.9%) satisfied. Furthermore, from the results of statistical tests obtained  $p \text{ value} = 0.03 < = 0.05$  which indicates that there is a significant relationship between the guarantee of pharmacy installation officers with inpatient satisfaction.

Assurance is the respondent's perception of knowledge and courtesy as well as the service ability of pharmacy installation officers in generating the confidence and trust of the respondent. Assurance includes the knowledge, ability, courtesy, trustworthiness of the staff, and freedom from danger, risk or doubt. Relates to the ability of employees to instill trust in customers, polite attitude and employee's ability to answer customer questions. If the patient feels that the service received from the guarantee aspect of the pharmacy installation officer is very good, the number who will buy or redeem the drug will increase, while if the patient feels disappointed with the guarantee of the pharmacy installation officer, one form of patient disappointment is deciding not to buy or redeem the drug in that place.

The staff assurance variable affects patient satisfaction because the patient's family complains that the staff is usually not friendly in providing friendly service assurance, for example, officers sometimes show unfriendly facial expressions to patients who are waiting in line. This is because the officers feel stressed by the patient's insistence to be served immediately. In addition, another problem is that there is no guarantee in terms of queuing order because there is no queue number available for the families of patients who are queuing, causing the patient's family to complain because patients who have been queuing for a long time feel that they are preceded by patients who have just queued. Not only that, there is also no guarantee of accuracy in drug administration because sometimes a patient's medication is confused with another patient's medication. This is due to the lack of thoroughness of officers in giving drugs.

3. Cross Tabulation Between Empathy of Pharmacy Installation Officers and Satisfaction of Inpatients

Empathy	Patient Satisfaction				p=0,02
	Satisfied		Not satisfied		
	n	%	n	%	
Enough	28	31.8	21	23.9	
Not enough	4	4.5	35	39.8	

Based on the table above, it is known that of the 49 respondents with sufficient employee empathy, the majority were satisfied with 28 (31.8%) and 21 respondents (23.9%) were found to be dissatisfied, while the majority of the 39 respondents who lacked empathy were obtained 35 (39.8%) stated that they were dissatisfied and found 4 respondents (4.5%) who were satisfied. Furthermore, from the results of statistical tests obtained  $p \text{ value} = 0.02 < = 0.05$  which indicates that there is a significant relationship between the empathy of pharmacy installation officers and inpatient satisfaction.

Empathy is individual attention given by service providers so that customers feel important, valued and understood by the company. The essence of this dimension is how the company convinces its customers that they are unique and special and can be described with personal attention to specific needs and to patient complaints where in general patients want to be treated and paid special attention by the pharmacy manager of the hospital pharmacy installation. This will increase their trust in the pharmacy installation of the hospital pharmacy. The attitude of the officers who are patient and painstaking in dealing with patients is enough to give satisfaction to the patient, besides that the officer has respect, is friendly, can understand the situation experienced by the patient well and can know what is expected of each patient, so that it will make the patient feel satisfied with the service. which is given. If the patient feels that the officer's empathy is very good, the number who will buy or redeem the drug will also increase, while if the patient feels disappointed with the officer's empathy, one form of patient's disappointment is deciding not to buy or redeem the drug at the place.

The officer's empathy variable affects patient satisfaction because the patient's family complains

about the attitude of the officer who sometimes discriminates against the patient's family who will take or redeem the drug because if the officer and the other patient's family know each other or have family relationships, the patient's family is the fastest service officer even though it is still there is a patient's family who has had their turn to be served and has been queuing for a very long time.

4. Cross Tabulation Between Responsiveness of Pharmacy Installation Officers and Inpatient Patient Satisfaction

Responsiveness	Patient Satisfaction				p=0,02
	Satisfied		Not satisfied		
	n	%	n	%	
Enough	32	36.4	20	22.7	
Not enough	0	0	36	40.9	

Based on the table above, it is known that of the 52 respondents with sufficient response from officers, the majority were satisfied as many as 32 (36.4%) and found 20 respondents (22.7%) who were dissatisfied, while out of 36 respondents, the responses of officers who were not obtained were not. satisfied as much as 36 (40.9%). Furthermore, from the results of statistical tests obtained p value = 0.02 < = 0.05 which indicates that there is a significant relationship between the responsiveness of pharmacy installation officers and inpatient satisfaction.

Responsiveness is the willingness to help customers and provide prompt and appropriate service. This dimension emphasizes attention and speed in dealing with customer requests, statements, complaints and difficulties. Pharmacy installation pharmacy Hospital is a location that is generally a place for someone to get health services. Therefore, health service providers must be able to respond to every patient complaint. Thus the high responsiveness of the pharmacy manager of the hospital pharmacy installation will give patients a sense of confidence that they will always be given the best service. If the patient feels that the service received from the responsiveness aspect of the officer is very good, the number who will buy or redeem the drug will increase, while if the patient feels disappointed with the responsiveness of the officer, one form of patient disappointment is

deciding not to buy or redeem drugs at the hospital that place.

The officer's responsiveness variable affects patient satisfaction because the patient's family complains about the lack of responsiveness of the officer if there is a patient's family who needs information related to the drug they will redeem. Officers sometimes do not accommodate the needs of the patient's family for the drug information that the patient needs. Sometimes officers do not provide explanations about the rules for using drugs because the officers argue that the rules for using drugs are already listed on the label or drug packaging so there is no need to explain to the patient's family in detail about the rules for use when the officer should explain the procedure for using the drug because sometimes there are patients' families those who come to take medicine have problems with illiteracy so they need an explanation orally and in detail.

5. Cross Tabulation Between Pharmacy Installation Officer Communication and Inpatient Patient Satisfaction

Communication	Patient Satisfaction				p=0,04
	Satisfied		Not satisfied		
	n	%	n	%	
Enough	31	35.2	16	18.2	
Not enough	1	1.1	40	45.5	

Based on the table above, it is known that of the 47 respondents on sufficient officer communication, the majority were satisfied as many as 31 (35.2%) and 16 respondents (18.2%) were found to be dissatisfied, while the majority of 41 respondents on officer communication were not obtained. stated that 40 (45.5%) were dissatisfied and found 1 respondent (1.1%) who was satisfied. Furthermore, from the results of statistical tests obtained p value = 0.04 < = 0.05 which indicates that there is a significant relationship between communication between pharmacy staff and inpatient satisfaction.

Communication means conveying information to customers in a language that is easy for them to understand and always listening to customer suggestions and complaints. This includes an

explanation of the services/services offered, service fees, trade-offs between services and costs, as well as the process of handling potential problems that may arise. If the patient feels that the officer's communication is very good, the number who will buy or redeem the drug will also increase, while if the patient feels disappointed with the officer's communication, one form of patient disappointment is deciding not to buy or redeem the drug at the place.

Variables of access to service officers affect patient satisfaction because the patient's family complains that the officer does not provide accurate information regarding the explanation of the drug asked by the patient's family and sometimes conveys it in a convoluted manner so that it is difficult for the patient's family.

6. Cross Tabulation Between Pharmacy Installation Form and Inpatient Patient Satisfaction

Pharmacy Installation Physical Form	Patient Satisfaction				p=0,04
	Satisfied		Not satisfied		
	n	%	n	%	
Enough	21	23.9	7	7.9	
Not enough	11	12.5	49	55.7	

Based on the table above, it is known that of the 28 respondents in the physical form of the installation, the majority were satisfied as much as 21 (23.9%) and found 7 respondents (7.9%) who were dissatisfied, while of the 60 respondents in the physical form of the installation which was not obtained, the majority stated dissatisfied as many as 49 (55.7%) and found 11 respondents (12.5%) who are satisfied. Furthermore, from the results of statistical tests obtained p value =  $0.04 < = 0.05$  which indicates that there is a significant relationship between the physical form of the pharmacy installation with inpatient satisfaction.

This dimension is usually used by companies to increase the image in the eyes of consumers which can be described by the cleanliness of the room, the neatness of clothes, and the arrangement of the place. In a service company, especially in a hospital, the physical condition factor in general will give an idea of how the hospital can have the potential to show its function as a place for health services.

In general, someone will view a hospital's potential initially from its physical condition. With a clean, neat and orderly condition, people will suspect that the hospital will carry out its functions properly. Spring in Umar (2013) said that a person's feeling of satisfaction arises when they compare their perceptions of the services they want. Therefore, even though the patient's expectations have been met but they are not satisfied, this is because there are still other unfulfilled desires, such as clean facilities to support services and the existence of supporting facilities. This is in line with the results of the study which showed that there was a significant influence between the physical form of the pharmacy installation on patient satisfaction. If the patient feels that the service received from the physical evidence aspect is very good, the number who will buy or redeem the drug will increase, while if the patient feels disappointed with the appearance of the pharmacy's physical evidence, one form of patient disappointment is deciding not to buy or redeem drugs at the pharmacy that place.

Physical form variables affect patient satisfaction because the patient's family complains about incomplete facilities in the waiting room, thereby reducing patient comfort when queuing. The patient complains that the air temperature is too hot in the room because there is no air conditioning available. In addition, the patient's family complained about the unavailability of drug brochures and drug information available at the pharmacy so that the patient's family did not know the benefits of the drug, especially for the patient's family who did not have basic knowledge about drugs.

7. Cross Tabulation Between Pharmacy Installation Access and Inpatient Patient Satisfaction

Pharmacy Installation Access	Patient Satisfaction				p=0,02
	Satisfied		Not satisfied		
	n	%	n	%	
Enough	27	30.7	7	7.9	
Not enough	5	5.7	49	55.7	

Based on the table above, it is known that of the 34 respondents with adequate access to pharmaceutical installations, 27 (30.7%) were satisfied and found 7 respondents (7.9%) dissatisfied, while out of 54

respondents who lacked access to pharmaceutical installations, it was found that it was obtained that the majority stated that they were not satisfied as many as 49 (55.7%) and found 5 respondents (5.7%) who were satisfied. Furthermore, from the results of statistical tests obtained  $p \text{ value} = 0.02 < = 0.05$  which indicates that there is a significant relationship between access to pharmacy installations with inpatient satisfaction.

If the patient feels that the service access is very good, the number who will buy or redeem the drug will also increase, while if the patient feels disappointed with the service access, one form of the patient's disappointment is deciding not to buy or redeem the drug at the place. The variable of access to officer services affects patient satisfaction because the patient's family complains about the complexity of accessing services at the pharmacy installation, for example, the difficulty of the pharmacy installation to be contacted by telephone even though the patient whose house is very far away or has been out of the hospital needs information if there are drugs that are not suitable for consumption. by the patient because it causes allergies but does not allow the patient to come to the hospital just to ask the pharmacy staff at the pharmacy installation. In addition, another problem related to access to services at pharmacy installations is the unavailability of information boards indicating the presence of pharmacies, causing many families of patients who have just come for treatment not to know the location of the pharmacy.

*B. Multivariate Analysis*

Multivariate analysis was carried out on the independent variables that had the most influence on patient satisfaction. The results of the multivariate statistical test can be seen as follows

Variabel	B	S.E.	Wald	df	Nilai p
Reliability Pharmacy Installation	4,543	1,426	10,156	1	0,001
Physical Form	3,911	1,585	6,091	1	0,014
Empathy	2,732	1,575	3,007	1	0,083

Communi- cation	7,058	2,310	9,338	1	0,002
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From the results of the above-mentioned logistic regression obtained from the last stage, it can be concluded that the most influential variable on patient satisfaction is the reliability of the staff with  $p \text{ value} = 0.001$ .

CONCLUSION

Based on the results of research and discussion on the influence of the quality of pharmaceutical services on inpatient satisfaction at RSU Melati Perbaungan, it can be concluded that to obtain patient satisfaction, the hospital must always pay attention to excellent service quality.

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