Overview of Patient Satisfaction With Information Services and Drug Availability in The Pharmacy Institution of Ibnu Sina Hospital, Makassar

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Abstract

Pharmacy services are a crucial aspect of healthcare systems, directly influencing patient satisfaction levels. At Ibnu Sina Hospital in Makassar, two key factors affecting patient satisfaction are drug information services and drug availability. Patient satisfaction with these services serves as an indicator of the quality of pharmacy care provided. This study aims to analyze patient satisfaction with drug information services and drug availability at the Pharmacy Department of Ibnu Sina Hospital, Makassar. The study employed a descriptive observational design with a cross-sectional approach. Data were collected using a Likert-scale questionnaire administered to 100 randomly selected respondents. The results showed that patient satisfaction with drug information services ranged from satisfied to very satisfied across all dimensions studied. Empathy received the highest score (84.2%), followed by responsiveness (80.3%) and assurance (82.2%), indicating that patients felt personally cared for and confident in the competence of the pharmacists. Medication availability received a score of 86.5%, indicating that the majority of patients were satisfied with the availability of medications at this hospital. Overall, the results of this study suggest that pharmacy services at Ibnu Sina Hospital, Makassar, have met patient expectations, both in terms of clear and accurate drug information and adequate drug availability. This study recommends that the hospital continue to improve the quality of communication between pharmacists and patients and ensure optimal drug availability to further enhance patient satisfaction.

Keywords: Patient Satisfaction; Drug Information Services; Drug Availability; Pharmacy Installation and Ibnu Sina Hospital.

I. INTRODUCTION

Patient satisfaction with pharmaceutical services in hospitals is increasingly recognized as an important indicator of the quality and success of health care [1]. The two main dimensions that affect patient satisfaction in the context of hospital pharmacy services are information services (including effective drug-related counseling and communication) and drug availability (sufficient stock and timely delivery of drugs) [2], [3]. Clear and reliable information services and the smooth availability of medicines play a major role in improving patient adherence to therapy and the quality of treatment outcomes [4], [5]. Previous studies have shown that quality pharmacist communication and drug stock adequacy have a significant influence on patient satisfaction, with direct implications on cost control and treatment outcomes [6]–[8]. In addition, the existence of an effective drug information management system and the support of modern technology, such as electronic prescriptions, further support smooth access to drug information that can affect the overall patient experience [9].However, although many studies have highlighted the relationship between drug

availability and patient satisfaction, some studies have also shown the presence of variability, where drug availability alone is not always the single factor determining satisfaction [10]. Other aspects, such as the quality of pharmacist communication, wait times, and the behavior of pharmacy staff, also play a role in shaping patients' perception of the quality of services received. In the context of Indonesian hospitals, such as Ibnu Sina Hospital Makassar, drug management and information services are often a challenge in itself. Factors such as drug vacancies, overstock, and lack of adequate information for patients can interfere with the smooth running of therapy and lower patient satisfaction levels.

Therefore, it is important to conduct an in-depth study related to these two main dimensions at Ibnu Sina Makassar Hospital to identify the factors that affect patient satisfaction and provide evidence-based solutions to improve pharmaceutical services at the hospital.This study aims to fill the gap in understanding the influence of information services and drug availability on patient satisfaction at Ibnu Sina Hospital Makassar. Based on the literature review, it is important to analyze how clear and adequate communication of drug information and the adequacy of drug stocks can affect overall patient satisfaction, especially in the hospital environment. According to several previous studies, patient satisfaction is influenced by the ability of pharmacists to provide accurate and easy-to-understand information and the availability of drugs that suit the patient's needs, especially in outpatient services [2], [4]. This research is expected to contribute to improving the quality of pharmaceutical services by offering relevant and applicable recommendations based on the findings obtained at Ibnu Sina Hospital Makassar. By considering the factors that affect patient satisfaction with information services and the availability of drugs, this study aims to analyze the level of patient satisfaction with these two dimensions at Ibnu Sina Hospital Makassar. The main focus of this study is to determine the level of patient satisfaction with the drug information services provided by pharmacists, including reliability, responsiveness, and empathy in providing explanations about the drug, as well as the level of satisfaction with the availability of drugs for outpatients related to the completeness of the drug stock and the ease of patients in obtaining drugs without the constraints of availability.

II. METHODS

This study employs a descriptive observational design with a cross-sectional approach to identify the impact of independent variables (patient satisfaction) on dependent variables (availability of medication and information services) in a single measurement [11]–[13]. Data were collected using questionnaires, with a sample selected using probability sampling methods, specifically simple random sampling, and a sample size of 100 individuals determined by Slovin's formula. The research was conducted at the Outpatient Pharmacy Installation of Ibnu Sina Hospital, Makassar, in August 2025. Inclusion criteria for the sample included patients aged over 17 years who are capable of communicating, reading, and writing effectively, and are willing to complete the questionnaire. The variables studied are patient satisfaction (independent variable), with medication availability and information services (dependent variables). The research instrument used is a questionnaire with a Likert scale to measure patient satisfaction with both dimensions: information services and medication availability. The collected data were analyzed descriptively to calculate satisfaction percentages based on the Likert scale. The research adhered to ethical standards, including informed consent, data confidentiality, the principle of benefit, and fairness and openness to all respondents. Ethical approval was obtained from the Ethics Committee of the Universitas Muslim Indonesia, with registration number UMI012507519.

III. RESULT AND DISCUSSION

Table 1. Results of the Validity Test of Patient Satisfaction Questionnaire for Pharmaceutical Services

Item	r-count	r-table	Remarks	Item	r-count	r-table	Remarks
1	0,693	0,361	Valid	13	0,459	0,361	Valid
2	0,692	0,361	Valid	14	0,654	0,361	Valid
3	0,725	0,361	Valid	15	0,679	0,361	Valid
4	0,651	0,361	Valid	16	0,688	0,361	Valid
5	0,501	0,361	Valid	17	0,723	0,361	Valid
6	0,609	0,361	Valid	18	0,670	0,361	Valid

7	0,580	0,361	Valid	19	0,453	0,361	Valid
8	0,559	0,361	Valid	20	0,563	0,361	Valid
9	0,636	0,361	Valid	21	0,647	0,361	Valid
10	0,607	0,361	Valid	22	0,644	0,361	Valid
11	0,475	0,361	Valid	23	0,486	0,361	Valid
12	0,778	0,361	Valid	24	0,437	0,361	Valid

Table 1 shows the results of the validity test for 24 questions in the questionnaire that measured patient satisfaction with pharmaceutical services at Ibnu Sina Hospital Makassar. Each item was tested using r-count and compared to the r-table value (0.361). The test results showed that all items had an r-count value greater than the r-table, which indicates that all questions in this questionnaire were valid. For example, the first item has an r-count value of 0.693, which is greater than the r-table value, so it is declared valid. This means that all questions used to measure patient satisfaction in terms of pharmaceutical services, such as reliability, responsiveness, assurance, empathy, and tangible quality, are trustworthy and fit the purpose of the study. This validity is important because it guarantees that the instrument used actually measures the aspects in question, namely patient satisfaction with the pharmaceutical services provided.

Table 2. Results of the Validity Test of Patient Satisfaction Questionnaire with Drug Availability

Item	r-count	r-table	Remarks
1	0,896	0,361	Valid
2	0,832	0,361	Valid
3	0,767	0,361	Valid
4	0,833	0,361	Valid
5	0,562	0,361	Valid
6	0,778	0,361	Valid

Table 2 shows the results of the validity test for 6 questions that measure patient satisfaction with the availability of drugs at the Pharmacy Installation of Ibnu Sina Hospital Makassar. The results of the validity test showed that all items had an r-count value greater than the r-table value (0.361), indicating that the questions in this questionnaire were valid and reliable. For example, the first item shows an r-count value of 0.896, which is much higher than the r-table value, so it can be said that the question is very valid. This validity shows that research instruments can precisely measure the adequate availability of drugs in pharmaceutical services, which includes the availability of drugs that suit the needs of patients.

Table 3. Results of Variable Reliability Test for Pharmaceutical Services and Drug Availability

Variable	Cronbach's Alpha	*N of Items*
Pharmaceutical Services	0,923	24
Drug Availability	0,873	6

Table 3 shows the results of the reliability test using Cronbach's Alpha value for the two main variables in this study, namely "Pharmaceutical Services" and "Drug Availability." The test results showed that the Cronbach's Alpha value for the variable "Pharmaceutical Services" was 0.923, which indicates a very high level of reliability, as a Cronbach's Alpha value above 0.70 indicates excellent internal consistency on the questionnaire. This means that the instruments used to measure patient satisfaction with pharmaceutical services have high stability and can produce reliable data. Meanwhile, for the "Drug Availability" variable, Cronbach's Alpha value was 0.873, which also indicates excellent reliability, indicating that this questionnaire is also reliable for measuring patient satisfaction with drug availability. Overall, the results of this reliability test ensure that the questionnaire used in this study provides consistent and reliable results, both in measuring pharmaceutical services and the availability of drugs at Ibnu Sina Hospital Makassar.

Table 4. Respondent Characteristics Results

Gender	Frequency (N)	Percentage (%)
Male	31	31
Women	69	69
TOTAL	100	100
Age (Years)	**Frequency (N)**	**Percentage (%)**
18-30	38	38
31-40	23	23
41-50	23	23
>50	16	16
TOTAL	100	100

Education	Frequency (N)	Percentage (%)
Elementary School	5	5
Junior High School	7	7
High School/Equivalent	58	58
Bachelor/ Diploma	30	30
TOTAL	100	100
Jobs	**Frequency (N)**	**Percentage (%)**
Students/ Students	17	17
PNS	9	9
Private/ Self-Employed	24	24
Health Workers	1	1
Miscellaneous	49	49
TOTAL	100	100
Income	**Frequency (N)**	**Percentage (%)**
<1 Million	21	21
1 Million	1	1
1-2 Million	22	22
>2 Million	56	56
TOTAL	100	100
Have Ever Taken Medicine at This Pharmaceutical Facility	**Frequency (N)**	**Percentage (%)**
First Time	17	17
2-5 times	54	54
More than 5 times	30	30
TOTAL	100	100

Table 4 presents information about the demographic characteristics of the respondents in this study, which consisted of gender, age, education, occupation, income, and frequency of taking drugs at the Outpatient Pharmacy Installation of Ibnu Sina Hospital Makassar. Based on gender, the majority of respondents were women (69%), while men were only 31%. In terms of age, the age group of 18-30 years dominates with a percentage of 38%, followed by the age of 31-40 years and 41-50 years old at 23% each, and over 50 years old at 16%. In terms of education, most respondents had a high school education/equivalent (58%), followed by a bachelor's/diploma (30%), and only a few had an elementary (5%) or junior high school education (7%). Respondents' occupations vary, with most working in other sectors (49%), followed by the private/self-employed (24%) and students/students (17%). The respondents' income showed that the majority earned more than 2 million (56%), while 22% earned 1-2 million, and 21% earned less than 1 million. Most respondents had also taken medication more than once at an Outpatient Pharmacy Facility, with 54% having taken medication between 2 and 5 times, and 30% more than 5 times. These demographic characteristics provide a clear picture of the profiles of respondents who participated in this study and can be used to understand the context of the research results.

Table 5. Satisfaction Level Assessment

		Reliability Dimensions			
No	Scale	Answer	Scale Score	Total	Percentage (%)
1	Dissatisfied	0	1	0	0
2	Dissatisfied	44	2	88	3
3	Quite satisfied	214	3	642	21
4	Puas	380	4	1.520	50
5	Very satisfied	162	5	810	26
	TOTAL	**800**		**3.060**	**100**
		Dimension of Responsiveness			
No	Scale	Answer	Scale Score	Total	Percentage (%)
1	Dissatisfied	0	1	0	0
2	Dissatisfied	8	2	16	1
3	Quite satisfied	103	3	309	19
4	Puas	164	4	656	41
5	Very satisfied	125	5	625	39
	TOTAL	**400**		**1.606**	**100**
		Warranty Dimensions			
No	Scale	Answer	Scale score	Total	Percentage (%)

1	Dissatisfied	0	1	0	0
2	Dissatisfied	7	2	14	1
3	Quite satisfied	58	3	174	14
4	Puas	129	4	516	42
5	Very satisfied	106	5	530	43
	TOTAL	**300**		**1.234**	**100**

Dimension of Empathy

No	Scale	Answer	Scale Score	Total	Percentage (%)
1	Dissatisfied	0	1	0	0
2	Dissatisfied	11	2	22	1
3	Quite satisfied	85	3	255	12
4	Puas	190	4	760	36
5	Very satisfied	214	5	1.070	51
	TOTAL	**500**		**2.107**	**100**

Tangible Dimensions

No	Scale	Answer	Scale score	Total	Percentage (%)
1	Dissatisfied	0	1	0	0
2	Dissatisfied	10	2	20	1
3	Quite satisfied	96	3	288	18
4	Puas	147	4	588	36
5	Very satisfied	147	5	735	45
	TOTAL	**400**		**1.631**	**100**

Drug Availability

No	Scale	Answer	Scale Score	Total	Percentage (%)
1	Strongly Disagree	0	1	0	0
2	Disagree	29	2	58	3
3	Setuju	266	3	798	38
4	Strongly agree	305	4	1.220	59
	TOTAL	**600**		**2.076**	**100**

Table 5 presents the results of the assessment of patient satisfaction levels with pharmaceutical services and drug availability based on five dimensions: reliability, responsiveness, assurance, empathy, and tangible, as well as drug availability. In the reliability dimension, the majority of respondents were satisfied, with 50% giving a score of "Satisfied" and 26% scoring "Very Satisfied." For the responsiveness dimension, 41% of respondents scored "Satisfied," while 39% scored "Very Satisfied." The assurance dimension shows that 42% of respondents are satisfied, with 43% feeling very satisfied. In the dimension of empathy, 51% of respondents felt very satisfied, and 36% felt satisfied. For the tangible dimension, 45% are very satisfied with the physical facilities, while 36% are satisfied. In terms of drug availability, 59% of patients are very satisfied, and 38% are satisfied with the availability of available drugs. Overall, most patients showed high levels of satisfaction with pharmaceutical services and drug availability, with the majority of respondents giving "Satisfied" and "Very Satisfied" scores. This shows that the pharmaceutical services and the availability of drugs at Ibnu Sina Hospital Makassar generally meet the expectations of patients.

Discussion

Patient Satisfaction with Drug Information Services at the Pharmacy Installation of Ibnu Sina Hospital Makassar

The results of the study showed that patient satisfaction with drug information services at the Pharmacy Installation of Ibnu Sina Hospital Makassar as a whole was in the category of satisfied to very satisfied with all dimensions of service quality. The reliability dimension obtained a percentage of 76.5% (satisfied), which indicates that pharmacists can provide medication information accurately and consistently. This shows that pharmacists are able to convey information related to drugs, dosage, rules of use, and the purpose of using drugs properly. The responsiveness dimension also obtained a high score with a percentage of 80.3%, which shows that pharmacy officers are agile and responsive in serving patients. Speed in responding to questions and providing information is one of the important elements in improving patient comfort, thereby further increasing satisfaction with the services provided. The assurance dimension obtained a score of 82.2% (satisfied), reflecting the competence and professionalism of pharmacists in providing a sense of security and trust to patients regarding the use of drugs. The empathy dimension

recorded the highest score of 84.2% and was in the very satisfied category. This shows that the patient feels personally cared for and that the pharmacist shows concern for the patient's needs, which certainly contributes to the overall patient satisfaction. Finally, the tangible dimension obtained a percentage of 81.5% (satisfied), which indicates that the physical facilities and environment of the pharmaceutical installation support the optimal service of drug information, creating a comfortable atmosphere for patients to receive the information they need.This study is in line with the results of the research which reported that the empathy score was in the satisfied category (3.49), showing that the friendly attitude and personal attention of pharmacy officers have an important role in increasing patient satisfaction with pharmaceutical services [14].

These results indicate that when pharmacists show empathy and care for patients, patients feel more valued and comfortable, which in turn increases their satisfaction with the services provided. Another study also supports this finding, recording a responsiveness value of 79.07%, which shows that the speed and alertness of pharmacists in providing services is very important in improving patient satisfaction [15]. In addition, the assurance dimension is also consistent with research (2025), which found the highest level of satisfaction in this dimension (86.19%), underlining the importance of a sense of security and confidence in the ability of pharmacy officers [16].In terms of reliability, the results of this study support the findings that show this dimension obtains a satisfaction level above 80%. The reliability of pharmacists in providing accurate and consistent drug information has been proven to have a significant impact on patient satisfaction [17]. On the other hand, the tangible dimension shows conformity with the findings that reported a high satisfaction score (88%) on this dimension, indicating that the physical condition and facilities of the pharmaceutical installation are in accordance with the standard of service expected by the patient [18]. Overall, this study shows that the drug information services provided by pharmacists at the Pharmacy Installation of Ibnu Sina Hospital Makassar have met the patient's expectations and are in accordance with the established standards of pharmaceutical services. The high level of satisfaction in all dimensions of service quality shows that the drug information delivered is not only clear and accurate, but also accompanied by a professional attitude and good attention from pharmacy officers.

Patient Satisfaction with the Availability of Drugs at the Pharmacy Installation of Ibnu Sina Hospital Makassar

The results of the study showed that the aspect of drug availability at the Pharmacy Installation of Ibnu Sina Hospital Makassar obtained a percentage score of 86.5%, which is included in the category of strongly agree. This indicates that the majority of patients assess that the availability of drugs provided by pharmaceutical facilities has met their needs optimally. Patients are satisfied because the drugs prescribed by the doctor are generally available and can be obtained immediately without any significant obstacles. The service process in the pharmaceutical department is also considered to run smoothly and efficiently, with a relatively short waiting time, so that patients do not feel disturbed in getting the drugs they need.This finding is in line with the research which found that the level of patient satisfaction with the availability of drugs at the UNISIA 24 Taman Sari Pharmacy reached 81.85% and was in the category of very satisfied. The similarity of these results shows that the availability of drugs is a factor that greatly affects patient satisfaction in pharmaceutical services.

When the medication needed is fully available and can be obtained on time, patients tend to feel more comfortable and confident in the services provided. The availability of good drugs also reflects the effectiveness of the drug inventory management system, from planning, procurement, to distribution [17], [19]. These findings reinforce the view that optimal drug availability management plays an important role in improving the quality of pharmaceutical services and patient trust in healthcare facilities.Research conducted also showed similar results, with patient satisfaction with the availability of drugs at Pharmacy Kimia Farma Sao-sao reaching 86.3%, which is included in the very satisfied category [20]. These findings indicate that patients assess that the availability of drugs at the pharmacy has been able to meet their treatment needs optimally. The similarity of the results between this study and other studies further strengthens that the availability of adequate drugs is a very influential factor in shaping patients' positive perceptions of pharmaceutical services

Research Implications

This research provides important implications for improving the quality of pharmaceutical services at Ibnu Sina Hospital Makassar, especially in terms of drug information services and drug availability. Findings that show that the majority of patients are satisfied with all dimensions of drug information services and drug availability can be used as a basis to strengthen hospital policies in improving the quality of pharmaceutical services. Improving the quality of communication between pharmacists and patients, strengthening response speeds, and improving the availability of better drugs will further increase patient satisfaction. Therefore, this study provides evidence that professional and efficient pharmaceutical services will have a positive effect on the patient experience and the success of medical therapy.

Research Limitations

Although the results showed a high level of satisfaction, the study had some limitations. One of them is a sample that only includes outpatients at Ibnu Sina Hospital Makassar, so the results of this study may not be generalized to other hospitals or inpatients. In addition, the use of a questionnaire on the Likert scale may not fully describe the nuances of the patient's feelings towards each dimension of the service. External factors that affect patient satisfaction, such as local economic and cultural conditions, were also not fully explored in this study.

Further Research Direction

Further research can expand the scope of the sample to include inpatients, as well as other hospitals in different regions to obtain more comprehensive results. Additionally, longitudinal studies that observe changes in patient satisfaction over time can provide a deeper understanding of the factors that influence patient satisfaction. Further research can also develop more detailed measurement instruments to more fully capture the patient experience, including psychological and social factors that may affect their perception of pharmaceutical services.

IV.   CONCLUSION AND SUGGESTIONS

This study shows that patient satisfaction with drug information services and drug availability at the Ibnu Sina Hospital Makassar Pharmacy Unit ranges from satisfied to very satisfied across all dimensions studied. Patient satisfaction is influenced by reliability, responsiveness, assurance, empathy, and the physical condition of the pharmacy service, which meets expected standards. Optimal drug availability also contributes to patient satisfaction. Overall, the pharmacy service at this hospital has met patient expectations, both in terms of clear and accurate drug information and adequate drug availability. Based on the study results, it is recommended that the hospital continue to improve the quality of communication between pharmacists and patients and ensure optimal drug availability to reduce patient complaints regarding drug shortages. Improving training for pharmacy staff in communication and responsiveness to patient needs is also crucial. Furthermore, the hospital needs to pay attention to the physical condition of the pharmacy unit so that patients feel comfortable interacting with staff and obtain the information they need.

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