



## **Patient Satisfaction with Pharmaceutical Services at a Hospital Outpatient Pharmacy in West Sumatra, Indonesia**

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### **Abstract**

**Background:** Patient satisfaction stands as a metric for evaluating the quality of pharmaceutical services. The presence of community requests for high-quality pharmaceutical services has driven pharmacy personnel to enhance these services, aiming to establish patient satisfaction. **Objective:** The objective of this research is to assess the degree of patient satisfaction with pharmaceutical services in the outpatient pharmacy and to explore how this satisfaction is linked to the patients' sociodemographics. **Methods:** Conducted at Padang Panjang Hospital's Outpatient Pharmacy in West Sumatra, Indonesia, this descriptive research employed a questionnaire administered directly to patients. The method used involves a questionnaire consisting of 20 questions divided into two dimensions: Friendly Explanation (containing 11 questions) and Managing Therapy (containing nine questions). The questionnaire's validity ( $r > 0.632$ ) and reliability (0.97). Data analysis was performed utilizing the Likert scale. **Results:** There were a total of respondents in this study (365 patients). Most of them (64.4%) were female, in the pre-elderly age group (45.2%), had completed high school (41.1%), and were housewives (31.8%). In general, the level of patient satisfaction is categorized as satisfied, with an average score of 3.49. Specifically, the "Friendly Explanation" got a score of 3.69, and the "Management of Therapy" got a score of 3.25. The study indicated notable statistical disparities in patient satisfaction levels based on age, education, and occupation ( $p < 0.05$ ), but gender did not have a significant impact ( $p > 0.05$ ). **Conclusion:** In summation, the study found that patients were satisfied with the pharmaceutical services at Padang Panjang Hospital's Outpatient Pharmacy.

**Keywords:** friendly explanation, managing therapy, outpatient pharmacy, patient satisfaction, pharmaceutical services

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## INTRODUCTION

Health efforts are integrated and sustainable activities to enhance community health through prevention, health promotion, curative and disease rehabilitation (Ministry of Health Republic of Indonesia, 2018). Pharmaceutical services not only include trading and preparation of drugs but also providing information about them. In addition, it ensures medication safety, rational medication, and improved quality of life (Bratkowska *et al.*, 2020). Patient satisfaction reflects pharmaceutical services in the interaction of medical services with patients and the health care system. Promptness in pharmaceutical service delivery coupled with effective communication between pharmacy personnel and patients increases patient satisfaction with pharmaceutical services (Ostrowska *et al.*, 2022). Evaluating patient satisfaction is a complex and multi-dimensional challenge. Various aspects can affect its value. However, some key points were highlighted, such as the availability of prescribed drugs, service delays, and drug counselling services (Nigussie & Edessa, 2018).

The Indonesian government still has many weaknesses in public services. This is proven by the existence of public complaints through online media or by reading letters about service procedures, service facilities, and infrastructure (Fadila *et al.*, 2022). Most hospitals in Indonesia have not carried out the expected pharmaceutical service activities (Larasanty *et al.*, 2019). This is caused by several constraints, such as the capacity of pharmacists, the limited capacity of hospital management to the hospital pharmacy function, hospital management policies, and little knowledge of pharmacists in hospitals (Fadila *et al.*, 2022). Because of circumstances like this, hospital pharmacy services are limited to a single commodity, namely the provision and distribution of pharmaceuticals.

The Padang Panjang Hospital is a referral hospital that provides public services. Based on data on patient visits to the outpatient Pharmacy at Padang Panjang Hospital, there has been an increase in visits from 2020, as many as 43,083 to 2021, which is 48,568. The quality of pharmaceutical services at the hospital may be affected as the number of patients looking for medical treatment rises. A surge in daily prescription numbers will result in a greater need for prompt and precise services. Patients are impatient and decide to take medicine the next day. This becomes a problem because the prescriptions on the following day will accumulate and affect the quality of service at that time. Hospitals that collaborate with BPJS sometimes have issues with

the BPJS service network. The high number of prescriptions served by pharmacies results in decreased prescription service speed and will lead to demands or criticism from patients who redeem drugs. This is one of the indicators of pharmaceutical services that can be measured by satisfaction.

Numerous studies have been conducted to assess the extent of patient satisfaction concerning pharmaceutical services within hospital settings. Certain patients express dissatisfaction with the pharmaceutical services rendered in hospitals, attributing this to a deficiency in the knowledge of pharmacy personnel. As per the viewpoints expressed by respondents, inadequate availability of prescribed medications in pharmacies is also a contributing factor (Nigussie & Edessa, 2018). However, some patients are satisfied because the pharmacist explains the information on drug use in an easy-to-understand manner (Bratkowska *et al.*, 2020). There are differences in the level of satisfaction. This research has never been done at the Padang Panjang Hospital. The primary goal of this study is to evaluate the levels of patient satisfaction regarding pharmaceutical services provided at the Outpatient Pharmacy within Padang Panjang Hospital. This assessment aims to provide insights into the calibre of healthcare services experienced by patients.

## MATERIALS AND METHODS

### Study design

This study employs an observational descriptive design utilizing a cross-sectional methodology through a prospective questionnaire-based survey. The criteria for inclusion encompassed individuals aged 18 years or older who acquired medications from an outpatient pharmacy, those who had undergone multiple treatments at the polyclinic and subsequently obtained medications from the outpatient pharmacy, and individuals who demonstrated their willingness to participate by completing an informed consent form. This study was not conducted on patients who did not redeem the drug on the same day as the treatment schedule.

### Instrument

The instrument development was based on the instrument previously developed by Larson *et al.* (2002). Subsequently, Dedy Almasdy conducted the instrument development process, starting with the translation of the instrument into the Indonesian language. This was followed by the assessment of agreement levels among experts ( $\kappa = 0.53$ ), validity testing ( $r > 0,632$ ), and reliability testing (Cronbach

alpha = 0.97) (Almasdy & Deria, 2015). This questionnaire consists of 20 questions divided into two dimensions: Friendly Explanation (containing 11 questions) and Managing Therapy (containing nine questions). The Friendly Explanation dimension includes questions about service friendliness, the professionalism of pharmacy staff, timeliness of service, and how well pharmacists respond to patient questions. Meanwhile, the Managing Therapy dimension includes questions about the pharmacist's efforts to ensure proper medication functioning, improve patient health, and address medication-related issues.

**Data analysis**

Because of circumstances like this, hospital pharmacy services are limited to a single commodity, namely the provision and distribution of pharmaceuticals. (Table 1).

**Table 1.** Interpretation of satisfaction level values (Larson *et al.*, 2002)

No	Range	Value
1	1 - 1,8	Dissatisfied
2	>1,8 - 2,6	Less satisfied
3	>2,6 - 3,4	Quite satisfied
4	>3,4 - 4,2	Satisfied
5	>4,2 - 5	Very satisfied

The Spearman test approach was employed to establish the correlation between patient characteristics and patient satisfaction, age and education factors. Meanwhile, in the case of the gender variable, the Mann-Whitney test was employed to ascertain the connection

between patient characteristics and patient satisfaction. Furthermore, the Kruskal Wallis test, facilitated through the SPSS tool, was utilized to discern the relationship between patient characteristics and patient satisfaction, particularly concerning the work variable.

**Ethical approval**

Ethical clearance for this research was granted by the Research Ethics Committee of the Faculty of Medicine, Universitas Andalas, Indonesia (Approval No. 692/UN.16.2/KEP-FK/2022). The participants were requested to complete informed consent forms to demonstrate their voluntary participation.

**RESULTS AND DISCUSSION**

A collective of 365 patients was included in the study, and the predominant characteristics of respondents, as delineated in Table 2, encompassed being female (64.4%), belonging to the pre-elderly age group (45.2%), having attained a high school education (41.1%), and being housewives (31.8%).

Our research marks the inaugural attempt to assess the degree of patient satisfaction with pharmaceutical services within Padang Panjang Hospital's outpatient pharmacy. This evaluation is seen from 2 dimensions: the Friendly Explanation and the Managing Therapy dimension. The study used a questionnaire consisting of 2 dimensions: questions 1 to 11 (the friendly explanation dimension) and questions 12 to 20 (the managing therapy dimension) (Table 3).

**Table 2.** Sociodemographic characteristics of patients (n = 365)

Demographic characteristics	Frequency	Percentage
Gender		
Male	130	35.9
Female	235	64.4
Age (years)		
Adult (18-44)	94	25.8
Pre-elderly (45-59)	165	45.2
Elderly (≥ 60)	106	29.0
Last education		
Primary school	57	15.6
Junior high school	82	22.5
Senior high school	150	41.1
Diploma	22	6.0
Bachelor	54	14.8
Profession		
Student	18	4.9
Public/Private Servants	55	15.1
Self-employed	73	20.0
Retired	38	10.4
Housewives	116	31.8
Other	65	17.8

In the Friendly Explanation dimension, the highest percentage of dissatisfied patients was on the question item on the speed of the pharmacy serving prescriptions. This is due to the high level of pharmacy service, which causes the long waiting time. In addition, to redeem BPJS patients' drugs, they must first enter their data into the BPJS service application. However, pharmacies have problems with the complex BPJS service network, so pharmacists need to do it manually by looking at the history of previous patients, especially if there are many patient visits on that day so that the speed of prescription service decreases. A similar incident can be seen in the study of Mohamed (2022); he stated that the reported average dispensing time (ADT) is longer than in other studies. This may be because pharmacists spend a long time explaining to patients insured and uninsured drugs in prescription according to the applicable BPJS (Osman *et al.*, 2022). This is identical to the results of the Lee *et al.* study (Lee *et al.*, 2015).

Conversely, the dimension of "friendly explanation" witnessed the most substantial percentage of respondents expressing a state of very satisfaction, specifically in relation to the query about the clarity of information provided by the pharmacist concerning the medication received and its usage. Patients are satisfied because when the drug is received, the pharmacist always tells them the name of the drug and its use.

Patients conveyed satisfaction with the practice of pharmacists promptly informing them about the medication's identity and purpose upon dispensing. Coinciding with these findings, a study conducted in Ethiopia demonstrated comparable patient satisfaction levels concerning critical medication guidelines, including administration instructions (83.2%), recommended timing (76.4%), and label comprehensibility (67.6%). At the same time, in line a study in Ethiopia showed the highest patient satisfaction level towards some of the vital medication instructions such as the administration instructions (83.2%), the advising time (76.4%) and the label clarity (67.6%) (Semegn & Alemkere, 2019).

Within the context of the therapy management aspect, the highest percentage of dissatisfied patients is the question item on the consultation time questionnaire provided by the pharmacist for the patient. The Padang Panjang Hospital pharmacy has a counselling room. However, in recent years, counselling activities have not been carried out. This is due to the COVID-19 pandemic, so counselling activities are limited and rarely carried out. Most patients said they were dissatisfied because they had never done counselling at

the pharmacy. This unsatisfactory occurrence finds support in a study undertaken by Larasanty *et al.* (2019), where it was unveiled that patients expressed a desire for pharmacists to allocate more time to addressing their medical inquiries and furnishing supplementary details about their prescribed medications (Larasanty *et al.*, 2019).

Meanwhile, the very satisfying level in the Managing therapy dimension is the question of the pharmacist's information about how many times and how long the drug should be taken. Patients expressed satisfaction with the information delivered by the pharmacist during the medication dispensing process. When discharged, successful patient counselling and proper drug education will improve patient adherence and treatment satisfaction, improving their clinical outcomes (Sanii *et al.*, 2016).

Table 4 shows the patient satisfaction levels in pharmaceutical services. In general, patient satisfaction with pharmaceutical services in the "friendly explanation" aspect was rated as content, attaining an average score of 3.69. On the other hand, the "managing therapy" dimension exhibited a reasonably satisfactory level, achieving an average score of 3.25. Furthermore, our results showed a statistically significant difference in age, education, and profession toward patient satisfaction level, but not gender (Table 5).

In this research, the overall patient satisfaction score averaged 3.49, falling within the satisfied range (between 3.4 and 4.2). This finding mirrors outcomes from a study in Sudan (with a mean satisfaction score of approximately 3.11) and surpasses the results from a 2018 study in Pakistan (about 2.78) (Aziz *et al.*, 2018; Osman *et al.*, 2022). Analyzing the responses provided by patients in the questionnaire, it is evident that a connection exists between the highest satisfaction levels within two dimensions. Specifically, patients expressed satisfaction with the pharmaceutical services concerning information about prescribed medications and their usage. Furthermore, patients also indicated satisfaction with detailed guidance regarding the timing, duration, and method of medication administration.

**Table 3.** Patient satisfaction level

	Average	Interpretation
Overall	3.49	Satisfied
Friendly explanation dimension	3.69	Satisfied
Managing therapy dimension	3.25	Quite satisfied

**Table 4.** Patient satisfaction level in pharmaceutical services

No	Questionnaire Items	Patient satisfaction level (%)				
		1	2	3	4	5
1	The appearance of the pharmacy is attractive and follows its function	0.00	3.29	17.53	57.26	21.92
2	Pharmacists' answers to your questions	1.92	4.93	27.95	50.41	14.79
3	Smooth communication between you and the pharmacist	0.27	8.49	31.78	49.59	9.86
4	The pharmacist's ability to explain problems related to your medicine	0.00	5.75	28.22	52.88	13.42
5	Speed Pharmacies serve your recipe	5.21	33.70	25.75	28.49	6.85
6	The ability of pharmacists to provide services	0.00	4.66	33.15	48.22	13.97
7	Clarity of information the pharmacist provides regarding the drugs you receive and their uses.	0.00	3.01	29.59	45.21	22.19
8	The directions are given by the pharmacist on how to use your medicine	0.00	4.11	45.21	36.99	13.70
9	Services provided by the pharmacy as a whole	0.00	3.56	21.10	53.42	21.92
10	Pharmacists answer your questions well	0.82	4.38	38.36	49.59	6.85
11	Hospitality and courtesy of Pharmacy officers in carrying out their duties	0.82	3.84	23.01	52.88	19.45
12	Pharmacists show concern for your health condition	1.10	6.58	37.26	50.41	4.66
13	Pharmacists explain how to store drugs properly	6.85	18.63	37.26	31.78	5.48
14	Pharmacist involvement in solving problems related to your medication	1.37	8.49	36.71	47.67	5.75
15	The pharmacist gives information about how many times and how long the drug should be taken	0.27	3.84	27.67	45.48	23.01
16	Pharmacists advise you to maintain or improve your health.	1.92	15.07	27.40	48.49	7.12
17	Confidentiality of the personal information you share with the pharmacist	0.27	6.03	35.34	49.86	8.22
18	Pharmacists' explanation of things to avoid while taking your medicine	10.41	21.64	32.05	31.23	4.66
19	The explanation is given by the pharmacist about the possible adverse drug side effects	12.60	22.19	33.15	29.59	2.47
20	Consultation time provided by the pharmacist for you	31.78	22.19	25.75	18.63	1.64
<b>Average</b>		3.78	10.23	30.71	43.90	11.40

In addition to explaining the patient satisfaction level based on these dimensions, this study also examines the association between sociodemographic characteristics and patient satisfaction level. Our results described a statistically significant difference for age, education, and profession toward patient satisfaction level, but not gender. Similar to the study done in northwestern Ethiopia, these areas of sociodemographic characteristics significantly differ in patient satisfaction levels (Surur *et al.*, 2015). Similar to that is the analysis performed by Alrasheedi *et al.* in 2019, which is done in the Kingdom of Saudi Arabia (Alrasheedi *et al.*, 2019). These aspects influence their understanding and reaction to the health services they receive. In contrast, in two studies in Pakistan (Aziz *et al.*, 2018) and Ethiopia (Molla *et al.*, 2022), no significant difference was observed in patient satisfaction concerning their demographic characteristics.

**Table 5.** The correlation between sociodemographic characteristics and the degree of patient satisfaction among the patient population (n = 365)

Demographic characteristics	Toward Patient Satisfaction (p-value)
Gender	0.065
Age (years)	0.039 <sup>(*)</sup>
Last education	0.000 <sup>(*)</sup>
Profession	0.000 <sup>(*)</sup>

\* = a significant relationship

Note: Gender using the Mann-Whitney test; age and last education using the Spearman Rank test; and profession using the Kruskal Wallis test

We acknowledge the constraints within our study. Initially, this research was undertaken solely within a single hospital in West Sumatra, Indonesia, implying that conclusions may not comprehensively mirror patients' experiences across Indonesia. Furthermore, the study comprised a relatively modest participant pool, and the duration of the study itself was limited, which

might restrict its ability to represent the broader spectrum of hospital patients accurately. All these limitations will affect the final result, including the need and quality of pharmaceutical services. However, this is the first study of this type in West Sumatra. Further studies involving a more general and more diverse patient population are needed.

## CONCLUSION

Patients' satisfaction levels regarding pharmaceutical services within the Outpatient Pharmacy at Padang Panjang Hospital are generally deemed satisfactory, registering an average score of 3.49. The "Friendly Explanation" dimension scored 3.69, while the "Managing Therapy" dimension scored 3.25. Moreover, our findings indicated a notable and statistically significant variation concerning patient satisfaction based on age, education, and profession. Conversely, gender appears to have no discernible impact on patient satisfaction.

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## AUTHOR CONTRIBUTIONS

Conceptualization, D. P., D. A. J., N. Q. D.; Methodology, D. P., D. A. J.; Software, D. P., N. Q. D.; Validation, D. P., D. A. J.; Formal Analysis, D. P., D. A. J., N. Q. D.; Investigation, D. P., N. Q. D.; Resources, D. P., N. Q. D.; Data Curation, D. P., D. A. J., N. Q. D.; Writing - Original Draft, D. P., D. A. J., N. Q. D.; Writing - Review & Editing, D. P., D. A. J.; Visualization, D. P., D. A. J., N. Q. D.; Supervision, D. P., D. A. J.; Project Administration, D. P., D. A. J.; Funding Acquisition, D. P., D. A. J.

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## CONFLICT OF INTEREST

The authors declared no conflict of interest.

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