

# Evaluating Clinical Pharmacy Services Relationship with the Level of Patient Satisfaction at Community Health Center in Tangerang Regency, Indonesia

Dini Permata Sari and Lia Devita

*Faculty of Pharmacy, Universitas 17 Agustus 1945 Jakarta, Jakarta 14350, Indonesia*

**Keywords:** Pharmaceutical Services, Patient Satisfaction, Health Center.

**Abstract:** Pharmaceutical care is an integrated activity aimed at identifying, preventing and resolving drug problems and health-related problems. This study aims to determine the conformity of the implementation of clinical pharmacy services to patients at community health centre in Tangerang Regency, Indonesia with pharmaceutical service standards and to determine the relationship between clinical pharmacy services and patient satisfaction at health centre, Tangerang Regency. **Methods** This research is a non-experimental research with a descriptive research design with a prospective approach. The data collection technique was a survey method using a questionnaire with a sample of 360 respondents. **Results** Obtained from the study by measuring clinical pharmacy services and patient satisfaction. In this study, the correlation test used was the Chi-Square test, obtained a significance value in the results  $p=0.34$  ( $p < 0.05$ ), which indicates that between clinical pharmacy services and the level of patient satisfaction shows a significant relationship. **The conclusion** of this study, there is a significant relationship between clinical pharmacy services and the level of patient satisfaction with the most dominant factors related to clinical pharmacy services lies in the dimensions of reviewing prescriptions, drug delivery and providing drug information. While the most dominant factor on patient satisfaction lies in the dimensions of direct evidence (tangibles).

## 1 INTRODUCTION

Pharmaceutical care is an integrated set of activities aimed at identifying, preventing and solving drug and health problems. The demands of patients and society and the improvement of the quality of pharmaceutical care require an expansion of the old paradigm, which is product-oriented (drug-oriented), to a new paradigm, which is patient-oriented with a philosophy of pharmaceutical care (K. Mohiuddin, 2019).

Pharmaceutical service standards at community health centres, based on the Minister of Health's regulation, include management standards for pharmaceutical supplies, medical devices and medical consumables, as well as clinical pharmacy service standards. The implementation of standard pharmaceutical care at community health centres must be supported by the availability of pharmaceutical resources that are oriented towards patient safety (Melton & Lai, 2017).

The intended pharmaceutical resources include human resources and infrastructure. The quality of pharmaceutical care in the community health centre is ensured, an evaluation of the quality of pharmaceutical care must be carried out, so that all

aspects of the implementation of pharmaceutical care can run in accordance with the objectives of pharmaceutical care in the community health centre, namely improving the quality of pharmaceutical services, ensuring safety. The law for energy pharmacy, protecting patients and the public from irrational use of drugs in the context of patient safety (El Hajj et al., 2016).

Satisfactory or high quality service will encourage patient or client loyalty, as customer satisfaction and word-of-mouth advertising are closely linked. Satisfactory service will also attract new customers. The formation of an extended mass image will continue as a consequence. This is the result of intense competition. Therefore, every healthcare institution will try to present itself in the best image to its patients (Lui et al., 2017).

The level of visitors at the Community Health Centre in Tangerang Regency based on the researchers' initial survey was an average of 60 patients per day with 2 staff in the pharmacy department. This data is the basis for conducting research at the community health centre in Tangerang Regency because with a large number of visitors and limited staff, there is concern that they will not be able

to serve consistently according to pharmaceutical service standards so that all patients receive satisfactory service. Since pharmaceutical services must be provided based on the applicable pharmaceutical service guidelines, it is therefore necessary to conduct research to evaluate the relationship between clinical pharmacy services and the level of patient satisfaction in order to measure the success of pharmaceutical services at Mekar Baru Community Health Centre. Performance that meets standards will provide satisfaction to both staff and patients and will always improve the quality of service.

## 2 METHODS

This research is a non-experimental study with a descriptive research design and a prospective approach. The data collection technique is a survey method using questionnaires that will later be distributed directly to patients at a community health centre in Tangerang Regency. The research was conducted from September to December 2022. The sample in this study was all patients who used health services at a community health centre in Tangerang Regency. The sample used in the research was the entire population, which was obtained using a convenience sampling technique based on inclusion and exclusion criteria.

Inclusion criteria:

- Patients who are willing to become respondents
- The patient must be at least 15 years old
- Patients within the Puskesmas area in Tangerang Regency.

Exclusion criteria:

- Patients who experience decreased consciousness
- Patients who cannot communicate
- Illiterate patient.

## 3 RESULTS AND DISCUSSION

The study was exempted from full ethical review by Universitas 17 Agustus 1945 Jakarta: No. 51/KEPKUTA45JKT/EC/EXP/08/2022. Based on the demographics of the patient satisfaction survey respondents, there were 360 respondents based on the inclusion and exclusion criteria.

Table 1: Demographic data of respondents.

Variable	N=360	Percentage
Age (year)		
17 - 25	90	25%
26 - 35	89	25%
36 - 45	100	28%
46 - 55	55	15%
56 - 65	21	6%
> 65	5	1%
Sex		
Men	255	71%
Female	105	29%
Job		
Civil servant	15	4%
Entrepreneur	51	14%
Housewife	83	23%
Student	12	3%
Farmers	122	34%
Others	77	21%
Education		
Elementary school	154	43%
Junior high school	39	11%
Senior high school	129	36%
Bachelor degree	10	2%

Based on the data in Table 1, the majority were aged 36-45 years, the gender was mostly female, 225 respondents, the occupation was mostly farming, 122 respondents, and the education was mostly primary school, 154 respondents.

The results of the patient satisfaction questionnaire: In questionnaire number 2, it is related to direct evidence (tangibles) The place of drug delivery is comfortable for providing information. Tangibles are physical facilities, equipment, staff working and installed materials that support services at the Community Health Centre, Tangerang Regency. The service and appearance that patients will receive are described in this dimension (Atif et al., 2020).

Based on the results of Table 2, the results obtained from the respondents' assessments were that the majority were very satisfied, so it can be concluded that patients were satisfied with the comfortable drug delivery place for providing drug

Table 2: The result patient satisfaction.

No	subject of assessment	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
<b>Tangibles</b>					
1.	The drug delivery place is convenient for providing information	193 (53.6%)	167 (46.4%)	0 (0.0%)	0 (0.0%)
2.	The waiting room is clean, comfortable and neat	169 (46.9%)	182 (50.6)	9 (2.5%)	0 (0.0%)
<b>Reliability</b>					
3	Pharmacy staff are able to answer patient questions	154 (42.8%)	194 (53.9%)	12 (3.3%)	0 (0.0%)
4	Pharmacy staff are able to provide information regarding drug dosage	132 (36.7%)	210 (58.3%)	15 (4.2%)	3 (0.8%)
5.	Pharmacy staff are able to provide information regarding how to use medication	130 (36.2%)	202 (56.3%)	21 (5.8%)	6 (1.7%)
6.	Pharmacy staff are able to provide information on drug contents	122 (33.9%)	208 (57.8%)	26 (7.2%)	4 (1.1%)
7.	Pharmacy staff are able to provide information regarding drug side effects	117 (32.5%)	211 (58.6%)	28 (7.8%)	4 (1.1%)
8.	Pharmacy staff are able to provide information regarding how to store medicines	122 (33.9%)	210 (58.3%)	22 (6.1%)	6 (1.7%)
9.	The provision of services by the pharmacy is based on the patient's serial number	126 (35.0%)	205 (56.9%)	24 (6.7%)	5 (1.4%)
<b>C. Responsiveness</b>					
10.	The service provided by pharmacy staff is fast (< 30 minutes for ready-made medicines and < 60 minutes for mixed medicines)	165 (45.8%)	168 (46.7%)	24 (6.7%)	3 (0.8%)
11.	Pharmacy staff are able to respond to patient complaints	147 (40.8%)	181 (50.3%)	28 (7.8%)	4 (1.1%)
<b>D. Assurance</b>					
12.	Pharmacy staff always communicate well with patients	112 (31.1%)	205 (56.9%)	39 (10.8%)	4 (1.1%)
13.	Pharmacy staff are always polite and friendly when serving patients	144 (40.0%)	189 (52.5%)	24 (6.7%)	3 (0.8%)
14.	Pharmacy staff always look attractive and pay attention to ethics when working	129 (35.8%)	203 (56.4%)	27 (7.5%)	1 (0.3%)
15.	Pharmacy staff use language that is easy to understand	150 (41.7%)	189 (52.5%)	18 (5.0%)	3 (0.8%)
16.	Pharmacy staff provide medicines in tightly closed and clean conditions	138 (38.3%)	204 (56.7%)	14 (3.9%)	4 (1.1%)
17.	The writing on the medication use label is legible and easy to understand	157 (43.6%)	184 (51.1%)	16 (4.4%)	3 (0.8%)
<b>Empathy</b>					
18.	Pharmacy staff provide encouragement and hope regarding the patient's recovery	153 (42.5%)	181 (50.3%)	24 (6.7%)	2 (0.6%)

information at the Community Health Center, Tangerang Regency. Tangible dimensions provided by the health centre to patients such as physical facilities, equipment, friendliness of staff. The higher the value of physical appearance felt by the patient, the higher the level of patient satisfaction (Saad Andaleeb, 2001). Questionnaire number 2 refers to direct evidence (tangibles) The waiting room is clean, comfortable and tidy. Tangibles are the physical facilities, equipment, working staff and installed materials that support the services at the community health centre. The service and appearance that patients receive are described in this dimension (Han et al., 2018).

Patients or visitors pay attention to the facilities and infrastructure of the Community Health Centre, Tangerang Regency for their comfort. Based on the results of Table 2, it was found that the majority of respondents were satisfied. However, out of the total respondents, there were 9 respondents (2.5%) who chose not to be satisfied because according to the respondents, the waiting room was not clean. Several studies have shown and confirmed that physical services have an influence on service quality (Ko et al., 2009).

In question 3 on the reliability of questions 3, 4, 5, 6, 7, 8 and 9 in Table 2, the majority of respondents were satisfied. For question number 3, there were 12 respondents (3.3%) who replied that they were dissatisfied because, according to the respondents, there were not enough pharmacists or pharmacy staff available to answer patients' questions. For question number 4, there were 15 respondents (4.2%) who replied that they were dissatisfied because, according to the respondents, there was a lack of pharmacists or pharmacy staff to provide information on the dosage of medicines. For question number 5, there were 21 respondents (5.8%) who were dissatisfied and 6 respondents (1.7%) who were very dissatisfied because, according to the respondents, there was a lack of pharmacists or pharmacy staff to provide information on the use of medicines. For question number 6, 26 respondents (7.2%) were dissatisfied and 4 respondents (1.1%) were very dissatisfied because, according to the respondents, there was a lack of pharmacists or pharmacy staff to provide information on the contents of medicines. For question number 7, 28 respondents (7.8%) were dissatisfied and 4 respondents (1.1%) were very dissatisfied because, according to the respondents, there was a lack of pharmacists or pharmacy staff to provide information on the side effects of medicines. For question number 8, there were 22 respondents (6.1%) who answered dissatisfied and 6 respondents

(1.7%) who answered very dissatisfied because, according to the respondents, there was a lack of pharmacists or pharmacy staff to provide information on how to store medicines. For question 9, 24 respondents (6.7%) were dissatisfied and 5 respondents (1.4%) were very dissatisfied because, according to the respondents, there was a lack of pharmacists or pharmacy staff to provide services based on patient serial numbers. Questionnaire number 10 relates to responsiveness: "The service provided by pharmacy staff is fast (< 30 minutes for ready made medicines and < 60 minutes for compounded medicines). Waiting time is the time spent by patients to receive outpatient and inpatient services from registration to entering the doctor's examination room (Xie & Or, 2017).

Waiting times are set by the Ministry of Health through minimum service standards. Waiting time is a sensitive issue. In one community health centre in Tangerang Regency, there is a danger that the quality of health services will deteriorate, because while patients are waiting, the waiting room is cramped. The chairs provided are not enough for the number of patients who come, the queue during registration is long due to the large number of patients visiting, during the examination the patient has to wait in the poly, and the patient has to wait again because after submitting the drug prescription, the pharmacy officer has to check the prescription in advance and provide medication based on applicable laws and regulations, resulting in long waiting times. Waiting times for medicines also have a significant impact on patient satisfaction, as inefficient waiting times can lead to patient dissatisfaction with health services (Panagioti et al., 2018).

Based on the results of Table 1, it was found that the majority of respondents were satisfied, so it can be concluded that patients are satisfied with the waiting time for services at the community health centre, speed of service is significantly related to patient satisfaction for users of community health centre services. However, of all respondents, 24 (6.7%) were still dissatisfied and 3 (0.8%) were very dissatisfied. This dissatisfaction was caused by the respondent having to wait a little longer to be called and to be given the medicine by the pharmacy staff, which made the respondent feel uncomfortable.

Questionnaire number 11 refers to responsiveness: Pharmacy staff are able to respond to patient complaints. Responsiveness is the ability of service providers to help patients and encourage them to use these services. Based on the results of Table 1, it was found that the majority of respondents were satisfied, so it can be concluded that patients were

satisfied with the pharmacy staff who were able to respond to patient complaints at Mekar Baru Community Health Centre. However, out of the total respondents, there were 28 respondents (7.8%) who were still dissatisfied and 4 (1.1%) who were very dissatisfied because according to the respondents, there is a lack of pharmacists or pharmacy officers to receive responses to patient complaints. In questionnaire number 12 on assurance, pharmacists always introduce themselves when communicating with patients. That the quality of service provided to other people must always be monitored so that good quality service can be created (Mutiarasari & Puspasari Kiay Demak, n.d.).

Based on the results of Table 1, it was found that the majority of respondents were satisfied, so it can be concluded that patients are satisfied with pharmacy staff who always introduce themselves when communicating with patients. However, out of all respondents, there were 39 respondents (10.8%) who were still dissatisfied and 4 (1.1%) who were very dissatisfied; according to the respondents, there is a lack of pharmacists or pharmacy staff who introduce themselves when communicating with patients.

In questionnaire number 13 on assurance, pharmacy staff are always polite and friendly when serving patients. The quality of service provided to others should always be monitored so that a good quality service can be created (Kruk et al., 2018). Based on the results of Table 1, it was found that the majority of respondents were satisfied, so it can be concluded that patients are satisfied with pharmacy staff who are always polite and friendly when serving patients. However, out of all the respondents, there were 39 respondents (10.8%) who were still dissatisfied and 4 respondents (1.1%) who were very dissatisfied. This was because, according to the respondents, there is a lack of pharmacists or pharmacy staff who are polite and friendly when serving patients.

Questionnaire number 14 on assurance stated that pharmaceutical staff always have an attractive appearance and pay attention to ethics in their work. The results in Table 1 show that the majority of respondents were satisfied. It can be concluded that patients are satisfied with pharmacy staff who always look attractive and pay attention to ethics in their work. However, out of all the respondents, there were 27 respondents (7.5%) who were still dissatisfied and 1 (.3%) who were very dissatisfied. This is because, according to the respondents, there is a lack of pharmacists or pharmacy staff who always look attractive and are ethical in their work.

In questionnaire number 15 on assurance, pharmacists use language that is easy to understand. The quality of service provided to others must always be monitored. Based on the results of Table 1, it was found that the majority of respondents were satisfied, so it can be concluded that patients are satisfied with pharmacy staff who always use language that is easy for patients to understand. However, of all the respondents, there were 18 respondents (5.0%) who were still dissatisfied and 3 (.8%) who were very dissatisfied. This is because, according to the respondents, there is a lack of pharmacists or pharmacy staff who use language that is easy to understand when communicating with patients.

Questionnaire number 16 refers to safety: Pharmaceutical staff provide medicines in tightly closed and clean conditions. The quality of the service provided to others should always be monitored in order to create a good quality service (Meesala & Paul, 2018). Based on the results in Table 1, it can be concluded that patients are satisfied with pharmacy staff who provide medicines in tightly closed and clean conditions, as the majority of respondents were satisfied. However, there were 14 respondents (3.9%) who were still dissatisfied and 4 (1.1%) who were very dissatisfied. This is because, according to the respondents, there were medicines that were handed out by pharmacy staff or pharmacists in conditions that were not tightly closed and clean.

Questionnaire number 17 related to assurance: The writing on the medicine leaflet is legible and easy to understand. Based on the results in Table 1, it was found that the majority of respondents were satisfied, so it can be concluded that patients were satisfied with the pharmacy staff who wrote legible and easy to understand medication use labels. However, of all the respondents, there were 16 (4.4%) who were still dissatisfied and 3 (.8%) who were very dissatisfied. This is because, according to the respondents, there is a lack of pharmacists or pharmacy staff who write legible and easy to understand medication use labels.

In the questionnaire, number 18 related to concern (empathy). Pharmacy staff provide encouragement and hope for the patient's recovery. Empathy is the ability to build rapport easily, to communicate effectively, and to be attentive to the needs of each patient (Sanders et al., 2021). Research conducted at the RSPP Home Health Care shows that the variables that have a significant impact on consumer satisfaction are tangibles and assurance (Agustina & Handayani, 2023).



Table 3: Test Correlation Service Pharmacy Clinic relationship with Satisfaction Patient.

		Satisfaction patient level
Pharmacy clinic service	<i>p</i>	0,03
	<i>n</i>	360

Based on the correlation test in Table 3, the p-value is 0.03. The calculation results in the Chi-square test showed a p-value <0.05, then there is a significant correlation between the quality of clinical pharmacy services and patient satisfaction. The better the pharmaceutical service provided by the pharmacy staff, the more patient satisfaction will increase. However, patient satisfaction can also be influenced by the facilities provided, such as a comfortable waiting room, sufficient chairs and adequate pharmacy staff (Asamrew et al, 2020).

#### 4 CONCLUSIONS

The study results the respondent's assessment on the Tangibles dimension of pharmaceutical care at the Community Health Centre, Tangerang Regency, the patient is very satisfied. In the respondent's assessment on the reliability dimension of pharmaceutical care is satisfied. In the respondent's assessment on the assurance dimension of pharmaceutical care is satisfied. In the respondent's assessment of the Emphasis dimension of pharmaceutical care at the Community Health Centre, Tangerang Regency, the patient is satisfied. From the respondent's assessment of the pharmaceutical service facility, it can be concluded that the patient is satisfied.

#### REFERENCES

- Agustina, R., & Handayani, S. (2023). HHC RSPP Patient Satisfaction and the Impact of Reliability, Assurance, Tangible, Empathy, and Responsiveness. *East Asian Journal of Multidisciplinary Research*, 2(2), 799–810. <https://doi.org/10.55927/eajmr.v2i2.3032>
- Asamrew, N., Endris, A. A., & Tadesse, M. (2020). Level of Patient Satisfaction with Inpatient Services and Its Determinants: A Study of a Specialized Hospital in Ethiopia. In *Journal of Environmental and Public Health* (Vol. 2020). Hindawi Limited. <https://doi.org/10.1155/2020/2473469>
- Atif, M., Razzaq, W., Mushtaq, I., Malik, I., Razzaq, M., Scahill, S., & Babar, Z. U. D. (2020). Pharmacy services beyond the basics: A qualitative study to explore perspectives of pharmacists towards basic and enhanced pharmacy services in Pakistan. *International Journal of Environmental Research and Public Health*, 17(7). <https://doi.org/10.3390/ijerph17072379>
- El Hajj, M. S., AL-Saeed, H. S., & Khaja, M. (2016). Qatar pharmacists' understanding, attitudes, practice and perceived barriers related to providing pharmaceutical care. *International Journal of Clinical Pharmacy*, 38(2), 330–343. <https://doi.org/10.1007/s11096-016-0246-0>
- Han, J., Kang, H. J., & Kwon, G. H. (2018). A systematic underpinning and framing of the servicescape: Reflections on future challenges in healthcare services. In *International Journal of Environmental Research and Public Health* (Vol. 15, Issue 3). MDPI. <https://doi.org/10.3390/ijerph15030509>
- K. Mohiuddin, A. (2019). The Excellence of Pharmacy Service: Past, Present and Future. *International Journal of Clinical and Developmental Anatomy*, 5(2), 11. <https://doi.org/10.11648/j.ijcda.20190502.12>
- Ko, H. H., Zhang, H., Telford, J. J., & Enns, R. (2009). Factors influencing patient satisfaction when undergoing endoscopic procedures. *Gastrointestinal Endoscopy*, 69(4). <https://doi.org/10.1016/j.gie.2008.06.024>
- Kruk, M. E., Gage, A. D., Arsenault, C., Jordan, K., Leslie, H. H., Roder-DeWan, S., Adeyi, O., Barker, P., Daelmans, B., Doubova, S. V., English, M., Elorrio, E. G., Guanais, F., Gureje, O., Hirschhorn, L. R., Jiang, L., Kelley, E., Lemango, E. T., Liljestrand, J., ... Pate, M. (2018). High-quality health systems in the Sustainable Development Goals era: time for a revolution. In *The Lancet Global Health* (Vol. 6, Issue 11, pp. e1196–e1252). Elsevier Ltd. [https://doi.org/10.1016/S2214-109X\(18\)30386-3](https://doi.org/10.1016/S2214-109X(18)30386-3)
- Lui, E., Ha, R., & Truong, C. (2017). Applying the pharmaceutical care model to assess pharmacist services in a primary care setting. *Canadian Pharmacists Journal*, 150(2), 90–93. <https://doi.org/10.1177/1715163517690538>
- Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. *Journal of Retailing and Consumer Services*, 40, 261–269. <https://doi.org/10.1016/j.jretconser.2016.10.011>
- Melton, B., & Lai, Z. (2017). Review of community pharmacy services: what is being performed, and where are the opportunities for improvement? *Integrated Pharmacy Research and Practice*, Volume 6, 79–89. <https://doi.org/10.2147/ijrp.s107612>
- Mutiarasari, D., & Puspasari Kiay Demak, I. (n.d.). *Response Times and Patient Satisfaction in Emergency Room at Anutapura General Hospital, City of Palu*. <https://doi.org/10.15520/jcmro.v2i05.165>
- Panagioti, M., Geraghty, K., Johnson, J., Zhou, A., Panagopoulou, E., Chew-Graham, C., Peters, D., Hodkinson, A., Riley, R., & Esmail, A. (2018). Association between Physician Burnout and Patient Safety, Professionalism, and Patient Satisfaction: A Systematic Review and Meta-analysis. In *JAMA*

- Internal Medicine* (Vol. 178, Issue 10, pp. 1317–1330). American Medical Association. <https://doi.org/10.1001/jamainternmed.2018.3713>
- Saad Andaleeb, S. (2001). Service quality perceptions and patient satisfaction: a study of hospitals in a developing country. In *Social Science & Medicine* (Vol. 52).
- Sanders, J. J., Dubey, M., Hall, J. A., Catzen, H. Z., Blanch-Hartigan, D., & Schwartz, R. (2021). What is empathy? Oncology patient perspectives on empathic clinician behaviors. *Cancer*, 127(22), 4258–4265. <https://doi.org/10.1002/cncr.33834>
- Xie, Z., & Or, C. (2017). Associations between waiting times, service times, and patient satisfaction in an endocrinology outpatient department: A time study and questionnaire survey. *Inquiry (United States)*, 54. <https://doi.org/10.1177/0046958017739527>

