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Analysis of Queueing System, Health Services, SOP, and Quality Standards on Patient Satisfaction Levels at Urangagung Health Center

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Abstract

This study investigates the influence of queuing systems, health services, SOPs, and quality standards on patient satisfaction in health facilities. Using surveys, data is collected from patients through questionnaires. The analysis shows that the effectiveness of the queuing system, high-quality health services, proper implementation of SOPs, and achievement of quality standards contribute positively to patient satisfaction. These findings provide strategic recommendations for improving the management of queuing systems, health services, SOPs, and quality standards in health centers, with the aim of increasing patient satisfaction and the quality of primary health services.

Keywords

Queueing System; Health Services; SOP; Quality Standards; Patient Satisfaction



I. Introduction

Quality health care is essential to maintaining and improving public health. The Urangagung Health Center in Indonesia plays an important role in meeting community health needs. To achieve success, it is important for health centers to continuously improve the quality of services and ensure patient satisfaction. Several studies have shown a relationship between health care quality and patient satisfaction. For example, a study by Yunike et al. found that there is a relationship between embodiment, reliability, certainty, responsiveness, and empathy for patient satisfaction (Yunike et al., 2023). Another study by Arif, Ahmad Zaini, et al. found that good quality health services increase patient satisfaction (Arif et al., 2022). In addition, Yusran et al. found that there is a relationship between patient satisfaction and reliability, empathy, and tangibles (Rahmadhani et al., 2023). Therefore, by focusing on these factors and continuing to improve the quality of service, Urangagung Community Health Center can guarantee patient satisfaction and contribute to the welfare of the local community.

An effective and efficient queuing system is very important to achieve patient satisfaction. By optimizing the queuing system, patients at the Urangagung Community Health Center can experience shorter waiting times and receive the services they need in a timely manner. This can lead to a better service experience and increased patient satisfaction. Apart from that, the implementation of Operating Standards

Procedures (SOPs) at Urangagung Health Center play an important role in ensuring consistency and uniformity in the delivery of health services. Clear and well-integrated SOPs help medical personnel carry out their duties effectively and efficiently, resulting in services that meet established expectations and standards (Jagodic et al., 2023).

This study aims to comprehensively analyze these factors and their relationship with patient satisfaction. The results of this analysis can provide a clear picture of the factors

that contribute to increasing the level of patient satisfaction, so that it can be used as a reference in improving and developing health services at the Urangagung Community Health Center (Tyagi et al., 2023), (Dutta et al., 2023).

Measurement of patient satisfaction serves as the primary measure for evaluating the quality of health care offered in health facilities (Sari & Rismayanti, 2023)(Sari & Rismayanti, 2023). A thorough understanding of the variables that influence patient satisfaction is essential in efforts to improve the standard of primary health care (Xie & Xu, 2023). The aim of this research is to examine the level of patient satisfaction in Health Centers, with a special focus on important elements such as queuing systems, health services, Standard Operating Procedures (SOP), and quality standards (Javid et al., 2023). Through data extraction from patient experiences, the investigation will explore the extent to which queuing system efficiency, health care quality, compliance with SOPs, and quality standards contribute to patient satisfaction (Arif et al., 2022). By understanding these variables, this research can identify areas for improvement and develop strategies to increase patient satisfaction and overall quality of care (Supardi et al., 2022).

Previous studies and research regarding analysis of queuing systems, health services, operational standards and also quality standards on the level of patient satisfaction at community health centers have been carried out. Research by Radito (2014) with the title "Analysis of the Influence of Service Quality and Health Facilities on Puskesmas Patient Satisfaction". The results of this research are that Hypotheses 1 and 2 are supported by the results of data analysis, showing that the quality of health services and facilities has a significant positive effect on patient satisfaction at community health centers. The independent variable only explains 39.1% of the dependent variable, while 60.9% is influenced by other factors such as location, medical costs, etc. Suggestions for future research are to consider other factors such as product quality, quality of nursing services, etc. The use of the purposive sampling method does not allow for generalization, so it is better to use simple random sampling.

Then research from Ferridillah & Yulianti (2013) with the title "Analysis of Standard Operating Procedures (SOP) for Providing Public Services at the Simpang Tiga Pekanbaru Community Health Center". The results of this research are that this research analyzes the SOP for public services at the health center, and the results show that the SOP has been implemented, but there are still several obstacles in the service, including limited facilities and lack of performance of service implementers. However, the service process is still not in accordance with what service users expect.

In research by Rosida & Sudiro (2017) this research examines the quality standards of health service facilities. Although this journal discusses the evaluation of actual quality performance of pharmaceutical officers in the context of implementing Minimum Service Standards (SPM), a research gap may arise in terms of exploring the factors that influence actual quality performance in more depth. For example, further research could explore the influence of factors such as motivation, training, and management support on the actual quality performance of pharmacy personnel.

Furthermore, research on patient satisfaction by (Taunay, 2010) Although the research uses a Likert scale, which is a common method for measuring consumer satisfaction by giving ratings to the statements provided, further research can consider using a more in-depth and comprehensive method of measuring consumer satisfaction. This is important to gain a more holistic understanding of the factors that contribute to consumer satisfaction. With more in-depth measurement methods, research can explore

more specific and detailed aspects of consumer experience, making it possible to identify key factors that influence consumer satisfaction more accurately and in depth.

II. Literature Review

2.1 Queuing System

A literature review of queuing systems for patient satisfaction reveals that an efficient queuing system can help reduce waiting times and increase patient satisfaction (Santos et al., 2022). Good communication between service personnel and patients is also a key factor, and queuing systems that facilitate effective communication can improve patient perceptions of services (Anuruddhika et al., 2022). Using mobile apps to access queue information can improve the patient experience and reduce anxiety regarding wait times (Anuruddhika et al., 2022). Several health facilities have integrated Geographic Information Systems (GIS) in queuing systems to provide real-time information to patients regarding waiting times and queue status (Lakshmi & Iyer, 2013).

Queuing systems are implemented in hospitals to ensure a more even distribution of patients, optimize doctor time, and increase patient satisfaction (Saleh et al., 2019). They can also be implemented in primary healthcare centers to improve service efficiency and provide a better experience for patients. Patient satisfaction surveys can provide valuable insight into the effectiveness of queuing systems, including aspects such as speed of service, quality of communication and comfort of facilities. Challenges in implementing a queuing system include technology adoption, resource availability, implementation costs, and staff training. Further research could focus on improving the implementation of queuing systems that are more efficient and suit the needs of patients and health care institutions.

In analyzing the patient queue system at the Urangagung Community Health Center, several important indicators can be considered. The following are several indicators that are generally used in evaluating queuing systems: Waiting time: The time required by patients to receive service after arrival. Queue length: The number of patients waiting at a given time. Speed rate: The number of patients served per unit time (for example, patients per hour). Resource use: Efficiency of resource use such as the number of counters or staff operating.

2.2 Health services

Health is as essential as food, clothing, and shelter, being one of the fundamental human requirements. In the absence of good health, human life loses its significance since individuals are unable to effectively perform their daily tasks while sick. Health services are activities performed independently or collaboratively within an institution with the goal of sustaining and enhancing health, as well as preventing, treating, and recovering from illness for individuals, families, groups, and communities (Saifudin, 2009). Health services strive to uphold and enhance health while also working to prevent and treat diseases within the community. It includes basic and/or specialized medical care for individuals or groups in order to prevent, diagnose, treat, recover from, or cure different physical and mental illnesses. Health services involve collaborative efforts between the government and community to enhance, sustain, and repair public health through preventive, promotive, curative, and rehabilitative services. Narrowly speaking, this task is undertaken by establishments that offer care to an ill individual, with a hospital being a common example in this scenario (Praptianingsih, 2007). Parasuraman et al. (1998) Service dimensions

include 1) Reliability, which refers to the capacity to deliver services accurately and dependably as promised. Performance needs to align with patient expectations, ensuring timeliness, consistent service for all patients without mistakes, and with great precision. 2) Responsiveness is a strategy aimed at offering prompt and suitable assistance to patients by providing them with transparent information. 3) Confidence The capacity to instill trust in patients, encompassing the sense of safety experienced by them, and the skill to address patient inquiries. This consists of various factors, such as communication, trustworthiness, protection, skill, and politeness. 4) Demonstrating empathy involves offering genuine, personal care to patients by empathizing with their needs. This is evident when the doctor prioritizes each patient, addresses concerns from both the patient and their family, and provides equal service to all patients regardless of their social standing. Physical evidence is the hospital's capacity to show its presence to outside entities. The solid presence and functionality of the organization's physical buildings and infrastructure in the local area serve as definite proof of the services offered by the provider.

2.3 Standard Operating Procedures (SOP)

Standard Operating Procedures (SOPs) are written guidelines that ensure consistency, efficiency, and safety in healthcare settings. SOPs play an important role in patient satisfaction by providing procedural clarity and promoting timeliness (Fauziah & Putra, 2023). Consistency in service delivery is achieved through the implementation of SOPs, which outline the steps and protocols that health care staff must follow (Purnamasari & Noviyani, 2023). SOPs also contribute to patient safety and quality of care by incorporating safety protocols and infection control measures (Taubenberger & Ellger, 2023). Integrating SOPs with patient care involves training staff to improve understanding and implementation of procedures (Dameri et al., 2023).

SOP monitoring and evaluation helps identify weaknesses and facilitates necessary improvements (Husni et al., 2023). Technology, such as health information systems and mobile applications, can improve SOP implementation by increasing the efficiency and accessibility of information. Challenges in implementing SOPs include staff awareness, acceptance, and the need for effective communication during policy changes or updates. Regular updating and evaluation of SOPs is essential to align with current healthcare practices and patient needs.

To analyze the implementation of SOPs (Standard Operating Procedures) at the Urangagung Community Health Center, several indicators can be applied (Arief & Sunaryo, 2020). The following are several indicators that are generally used in SOP analysis. Patient admission procedures: The steps to be followed when a patient comes in for services. Treatment procedures: Steps that must be followed by medical personnel in treating patient cases. Cleanliness and sanitation procedures: Steps to maintain cleanliness and sterilization of medical facilities and equipment. Medical records management procedures: Steps to record, store, and manage patient data safely and efficiently.

2.4 Quality Standards

Quality standards are guidelines or criteria used to assess the quality of a product, service or process. They set standards or requirements that must be met in order for something to be considered to meet the expected level of quality. Quality standards play an important role in ensuring that the products or services provided by an organization meet the set standards and satisfy customers. This helps in enhancing the reputation of the organization, minimizing risks, and increasing customer satisfaction. Quality standards can cover various aspects such as safety, reliability, performance, efficiency and user satisfaction (Ulumiyah, 2018).

Implementation of quality standards involves a structured and systematic process to ensure that a product or service meets specified requirements. This involves identifying relevant standards, developing appropriate work procedures and practices, and implementing measurements and evaluations of the organization's performance in achieving those standards. Quality standards also encourage organizations to make continuous improvements by periodically reviewing their processes, identifying nonconformities, and implementing corrective actions (Khafifah & Amran, 2022).

In analyzing quality standards at the Urangagung Community Health Center, several key indicators need to be considered (Ayudia et al., 2021). The following are several indicators that are generally used in quality standard analysis:Accreditation: Formal recognition from relevant authorities regarding the quality of an institution's health services. Service standards: Criteria that must be met in providing services to patients. Performance evaluation: The process of evaluating the extent to which services provided comply with established standards.

2.5 Patient Satisfaction

The concept of health care includes a variety of actions and services provided by health professionals to maintain or improve the health of individuals or groups (Yunike et al., 2023). Factors that influence patient satisfaction include effective communication between patients and healthcare providers, quality of care, and wait times for services (Wijaya et al., 2023). The use of health information systems (HIS) and telemedicine technology can also contribute to increased patient satisfaction by improving coordination, efficiency, and access to health services. Measuring patient satisfaction can be done through surveys and direct feedback, which helps identify areas for improvement (Kanwal et al., 2022). Patient participation, through education and involvement in decision making, is also important in increasing satisfaction and compliance (Nuairi et al., 2022). This literature review provides an overview of factors influencing patient satisfaction in health care and highlights the need for further research on patient-focused strategies to improve service quality and satisfaction. In analyzing patient satisfaction at the Urangagung Community Health Center, several important indicators need to be considered (Irawan et al., 2020). The following are several indicators that are generally used in patient satisfaction analysis.Patient satisfaction survey: Collecting data from patients about their experiences while receiving health services. Patient retention rate: The number of patients who return to receive services again after their first experience. Patient complaints: The number and type of complaints received from patients regarding the services received.

2.6 Linkages Queuing Systems, Health Services, SOPs, and Quality Standards on Patient Satisfaction Levels

The importance of identifying factors that influence the level of patient satisfaction in health facilities. These factors include queuing systems, health services, standard operating procedures (SOP), and quality standards.

First, the queuing system has a significant impact on the patient experience at the puskesmas. Efficiency in queue management can influence patient waiting times and their perception of service. For example, research can reveal how improving efficiency in queuing systems can reduce waiting times and increase patient satisfaction.

Second, the overall quality of health services also plays an important role in the level of patient satisfaction. This includes aspects such as medical staff capability, effective

communication, empathy, and availability of services. In-depth analysis of interactions between patients and healthcare workers can provide insight into the factors that most influence patient satisfaction.

Third, good and well-implemented SOPs can ensure consistency and quality in health services. Success in following established procedures can increase patient confidence in the health center and ensure that every patient receives the same standard of service.

Finally, quality standards provide a clear framework for evaluating and improving the quality of health services. By measuring health center performance against these standards, research can highlight areas where improvements are needed to increase patient satisfaction.

Overall, this research highlights the complexity of the relationship between the queuing system, health services, SOPs, and quality standards and the level of patient satisfaction at the Urangagung Community Health Center. By understanding these factors in more depth, more effective strategies can be designed to improve patient experience and satisfaction at the health center.

2.7 conceptual framework

Conceptual Framework as a relationship that combines independent variables (X) and dependent variables (Y).



Figure 1. Conceptual Framework

2.8 Research hypothesis

The hypothesis in this research is as follows:

H1: Queuing System has a significant influence on Patient Satisfaction,

- H2. Health Services have a significant influence on patient satisfaction,
- H3. SOPs have a significant influence on patient satisfaction,

H4. Quality Standards have a significant influence on patient satisfaction.

III. RESEARCH METHODS

3.1 Research mehods

The research methodology involved the use of a quantitative approach with carefully designed surveys to investigate queuing systems, healthcare services, standard operating procedures (SOPs), quality benchmarks and patient satisfaction levels at respected Health Centers (C. Zhang et al., 2023). This study included patients who sought help at the Health Center, with samples randomly selected based on the inclusion criteria of patients who had used health services at the center (Swarooprani, 2022). Research tools include carefully designed questionnaires that have been tested for authenticity and consistency before distribution (Singh & Singla, 2022). Data collection involved administering questionnaires to self-selected patients, direct observation of queuing and healthcare processes, and interviews with healthcare professionals to gain in-depth insight into SOPs and quality benchmarks (Singh & Singla, 2022). Data analysis was carried out using statistical software, such as SPSS, and regression analysis was used to assess the correlation between variables (Zhang, 2022). In addition to quantitative findings, in-depth conversations with health workers and astute observations provide qualitative context. The results of data analysis are examined thoroughly to formulate recommendations for improvement to increase efficiency, service quality and patient satisfaction at the Health Center.

This research methodology involved selecting a representative sample from the patient population at the Urangagung Community Health Center. The target population of this study was 3500 patients who actively used health services at the health center. To determine an appropriate sample size, this study applies the Slovin formula, which is a statistical method commonly used to determine sample sizes from large populations. By entering a known population of 3500 patients into the Slovin formula, and taking into account the desired confidence level and margin of error, this study obtained a representative sample size for more accurate and reliable analysis. Thus, the samples obtained will well represent the characteristics and preferences of patients at the Urangagung Community Health Center.

$$n = \frac{N}{1 + Ne^2}$$

Where:

n is the desired sample size, N is the population size, and e is the allowable error rate.

In this case, we have:

N=3500 (population size),

e is the error rate which is usually expressed in decimal form, for example 0.05 for an error rate of 5%.

$$n = \frac{3500}{1+3500(0.05)^2}$$
$$n = \frac{3500}{1+3500(0.0025)}$$

$$n = \frac{3500}{1+8.75}$$
$$n = \frac{3500}{9.75}$$

n = 358.97

So, the desired sample size is around 359 people.

3.2 Data Types and Sources

This research uses data sources obtained through two methods, namely primary data and secondary data. For primary data, the author collected information through an online questionnaire distributed to patients via Google Form. This questionnaire aims to collect data about patient perceptions of the queuing system, health services, SOPs and menu standards at the Community Health Center that meet the criteria for this research. Meanwhile, the secondary data used is supporting literature that is relevant to the research topic, such as journals or books.

3.3 Data collection technique

In this research, data collection techniques were used through distributing questionnaires. The questionnaire given contains statements that must be answered to collect relevant information. To assess respondents' attitudes, opinions and perceptions of social phenomena, a Likert scale was used (Kusmaryono et al., 2022). The Likert scale consists of 5 answer choices, namely strongly disagree, disagree, neutral, agree, and strongly agree (Hutchinson & Chyung, 2023). This scale makes it easier for respondents to fill out questionnaires and makes it easier for writers to collect data from respondents.

3.4 Data analysis technique

a. Descriptive Statistics

This research uses the Partial Least Square (PLS) method with the help of SmartPLS software to analyze the data. PLS is a technique in Structural Equation Modeling (SEM) which has a high level of flexibility in connecting theory with data (Antirad & Herlina, 2023).

b. Measurement Model (Outer Model)

In this research, validity testing was carried out to evaluate whether the questionnaire used was valid for each existing variable statement item. Several testing stages that must be carried out include convergent validity testing, calculating average variance extracted (AVE), and discriminant validity testing (Sánchez-Compaña & Sánchez-Cruzado, 2019).

c. Hypothesis testing

In hypothesis testing, t-statistical values and probability values are used as references. To test the hypothesis using statistical values, the t-statistic value used is 1.96 with a significance level α of 5%. Thus, the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected if the t-statistic value is > 1.96. Apart from that, the alternative hypothesis (Ha) is accepted if the p-Value is <0.05 (Radito, 2014).

3.4 Customer satisfaction



Figure 2. Research Flow

IV. Results and Discussion

4.1 Results

The research methodology used to assess this study is Structural Equation Modeling with Partial Least Squares (SEM-PLS). The PLS program utilized in this study is SmartPLS Version 3.0, and the SEM-PLS results can be seen in Figure 3.



Figure 3. PLS SEM results

Based on Figure 3, it can be seen that the factor loading value for all statement items has a value greater than 0.7, so it can be said that the statement items are valid. Hypothesis test

Causality is determined in the model by testing how the independent variable affects the dependent variable through hypothesis testing. By analyzing the t-test results and p-values, you can ascertain the criteria needed for hypothesis testing (p-value). If the p-value is less than 0.05 (5% significance level) or the t-statistic is greater than the t-table value, then the hypothesis can be accepted (2,000). The t-statistics for PLS analysis can be obtained using the bootstrap method.

Table 1. Hypothesis Testing Results							
Variable	Path Coefficient	T- Statistics	P-Value	Results			
Queuing system→Patient satisfaction	0.198	2.424	0.016	H1 is accepted			

Table 1. Hypothesis Testing Results

Health services→Patient satisfaction	0.266	2.421	0.016	H2 is accepted
SOUP \rightarrow Patient satisfaction	0.323	3.147	0.002	H3 is accepted
Quality standards→Patient satisfaction	0.216	2.157	0.032	H4 is accepted

Source: Data processed.

Based on Table 1, it shows that the p-value of the influence of the queuing system, health services, SOPs and quality standards on patient satisfaction is less than 0.05. Thus H1, H2, H3 and H4 are accepted.

4.2 Discussion

a. The Influence of the Queuing System on the Level of Patient Satisfaction at the Urangagung Community Health Center

The queuing system has a significant influence on the level of patient satisfaction at the health center. An efficient and integrated queuing system can influence patient perceptions of the services received. When patients experience a smooth, fast and wellorganized queuing process, this can increase overall patient satisfaction. On the other hand, if the queuing system experiences problems such as queue buildup, long waiting times, or unclear queuing processes, this can have a negative impact on patient satisfaction. An efficient and structured queuing process will provide a positive experience for patients. Short waiting times and dissemination of clear information regarding queue numbers and estimated service times can increase patient satisfaction. Queuing systems that provide transparent information to patients regarding their position in the queue and estimated waiting times will help reduce patient uncertainty and anxiety. Apart from the queuing process itself, the quality of service provided during the process also plays an important role in determining the level of patient satisfaction. Interaction with medical personnel, friendliness of staff, and opportunities to provide feedback are also factors that influence patient perceptions of health services. The importance of a good and integrated queuing system in community health centers not only influences operational efficiency but also has a direct impact on patient satisfaction levels. The research findings support Saleh et al. (2019), who explain that queuing systems influence patient satisfaction.

b. The Influence of Health Services on Patient Satisfaction Levels at Urangagung Community Health Center

The health services provided at the Urangagung Community Health Center have a significant influence on the level of patient satisfaction. Accessibility of health services includes ease of obtaining services, travel distance, waiting time, and transportation facilities. The easier it is for patients to access health services at the Urangagung Community Health Center, the higher the likelihood that they will feel satisfied with the services provided. The quality of medical services includes the competence of medical personnel, the medical technology used, the medical procedures carried out, and the success of diagnosis and treatment. Patients will tend to feel satisfied if they receive quality medical care at the Urangagung Health Center. Good communication services between medical personnel and patients as well as good service ethics also play an important role in increasing the level of patient satisfaction. Patients will feel more comfortable and confident if they receive clear and polite information from health workers. The physical facilities of the health center and the surrounding environment can also

influence the level of patient satisfaction. Cleanliness, friendliness of administrative staff, and the availability of supporting facilities such as comfortable waiting rooms also contribute to creating a positive experience for patients. By paying attention to these factors in a holistic and integrated manner, Urangagung Health Center can increase the overall level of patient satisfaction. The results of this study support Radito (2014) and Khafifah & Amran (2022), who explain that healthcare services affect patient satisfaction.

c. The Influence of SOPs on Patient Satisfaction Levels at Urangagung Community Health Center

SOP or Standard Operating Procedures have a significant influence on the level of patient satisfaction at the Urangagung Community Health Center. SOP is a guideline that regulates the steps that must be taken in every health service process, starting from registration, examination, treatment, to follow-up. By having clear and well-structured SOPs, Puskesmas can provide consistent and quality services to patients. SOPs help ensure that every patient receives the same service without undue differences. By following SOPs, medical personnel can provide services according to predetermined standards, thereby improving service quality. SOPs also play a role in maintaining patient safety by reducing the risk of errors in the service process. When the service process follows SOPs well, this will create a positive experience for patients, such as: fast and efficient treatment, clear communication between medical personnel and patients, as well as opportunities to provide input or complaints. In this way, the level of patient satisfaction can increase because they feel listened to, treated well, and receive care according to standards. The findings of this research support Ferridillah & Yulianti (2013) discovery that Standard Operating Procedures (SOPs) influence patient satisfaction.

d. The Influence of Quality Standards on Patient Satisfaction Levels at Urangagung Community Health Center

Quality standards in health services at the Urangagung Community Health Center have a significant influence on the level of patient satisfaction. When a health center implements high quality standards, this can increase patient trust and satisfaction with the services provided. The implementation of quality standards at the Urangagung Community Health Center covers various aspects, ranging from medical procedures, environmental cleanliness, communication with patients, to waiting times. By having clear and measurable quality standards, Puskesmas can ensure that every aspect of health services meets the set standards. By having good quality standards, Urangagung Community Health Center can improve the quality of services provided to patients. This includes improvements in disease diagnosis, appropriate treatment, and overall patient care. All this will contribute to increasing patient satisfaction levels. The level of patient satisfaction is an important indicator in assessing the quality of health services at a health center. By meeting quality standards, patients tend to feel satisfied with the services they receive. This can also create a good relationship between patients and health workers at the Urangagung Community Health Center. By implementing high quality standards, Community Health Centers can improve the quality of services and ensure that every patient is satisfied with the services they receive. The results of this research support Rosida & Sudiro (2017) explanation that quality standards influence patient satisfaction.

V. Conclusion

An efficient and integrated queuing system has a positive effect on patient satisfaction. A smooth, fast and organized queuing process can improve patient perceptions of the services provided. Health services influence patient satisfaction. Patients tend to feel satisfied if they can easily access quality health services and are supported by effective communication and a comfortable environment. Having clear and structured SOPs helps ensure consistency and quality of service. By following SOPs, community health centers can provide services that meet standards and increase patient confidence. Implementation of high quality standards contributes to increased patient confidence and satisfaction. By ensuring that every aspect of health services meets established standards, community health centers can improve the quality of services and strengthen relationships between patients and health workers.

Suggestions that can be given from this discussion are that the Urangagung Health Center needs to pay attention to and improve the efficiency of the queuing system to reduce patient waiting times and increase patient satisfaction. Improving the quality of health services, including the competency of medical personnel, medical technology, and physical health center facilities, must be a priority to ensure patients receive quality care. Implementation of clear and structured SOPs must be prioritized to ensure consistency in service and patient safety. Community health centers should ensure that high quality standards are implemented and maintained in every aspect of health services to increase overall patient confidence and satisfaction.

References

- Antirad, E., & Herlina, M. (2023). SEM-PLS untuk Persepsi Nilai pada Aplikasi Pemesanan Tiket Pesawat. Bandung Conference Series: Statistics, 3(1), 50–58. https://doi.org/10.29313/bcss.v3i1.5734
- Anuruddhika, T. M. ., Prasanth, S., & Rathnayaka, R. M. K. T. (2022). The Approaches Utilized in Queuing Modeling: A Systematic Literature Review. Asian Journal of Convergence in Technology, 8(2), 24–30. https://doi.org/10.33130/ajct.2022v08i02.006
- Arief, R., & Sunaryo. (2020). Pengaruh Penerapan Standar Operasional Prosedur (SOP), Gaya Kepemimpinan, dan Audit Internal Terhadap Kinerja Karyawan (Studi Kasus Pada PT. Mega Pesanggrahan Indah). Jurnal Ekonomika Dan Manajemen, 9(2), 125– 143.
- Arif, A. Z., Wahyudi, A., & Harista, D. R. (2022). Quality Of Health Services Can Increase In Patient Satisfaction. International Conference of Kerta Cendekia, 2(1), 209–213.
- Ayudia, S., Nadeak, B., & Suyaman, D. J. (2021). Evaluasi Mutu Pelayanan Puskesmas Terakreditasi Berdasarkan Indeks Kepuasan Masyarakat Di Kabupaten Karawang. Syntax Literate : Jurnal Ilmiah Indonesia, 6(6), 3037–3048.
- Dameri, M., Cirmena, G., Ravera, F., Ferrando, L., Cuccarolo, P., Stabile, M., Fanelli, G. N., Nuzzo, P. V., Calabrese, M., Tagliafico, A., Ballestrero, A., & Zoppoli, G. (2023). Standard Operating Procedures (SOPs) for non-invasive multiple biomarkers detection in an academic setting: A critical review of the literature for the RENOVATE study protocol. Critical Reviews in Oncology/Hematology, 185, 1–10.

- Dutta, M., Najm, F., Tomar, D., & Mehfuz, S. (2023). Smart Queueing Management System for Digital Healthcare. International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), 541–546. https://doi.org/10.1109/REEDCON57544.2023.10151351
- Fauziah, Q., & Putra, T. (2023). Standar Operasional Prosedur Pelayanan Wisatawan Di Pandan View Mandeh, Sumatera Barat. Arzusin Jurnal Manajemen Dan Pendidikan Dasar, 3(4), 538–551.
- Ferridillah, R., & Yulianti, F. (2013). Analisis Standar Operasional Prosedur (SOP) Penyelenggaraan Pelayanan Publik Pada Puskesmas Simpang Tiga Pekanbaru. Repository Universitas Riau, 1–7.
- Husni, M. F., Mattarima, Suljumansah, Anwar, V., & Devid. (2023). Effect of Standard Operating Procedures (SOP) and Work Environment on Employee Performance of PT. Bank Perkreditan Rakyat Sulawesi Mandiri Makassar. Formosa Journal of Sustainable Research, 2(2), 479–490. https://doi.org/10.55927/fjsr.v2i2.3074
- Hutchinson, D., & Chyung, S. Y. (Yonnie). (2023). Evidence-Based Survey Design: Adding 'Moderately' Or 'Somewhat' To Likert Scale Options Agree And Disagree To Get Interval-Like Data. Performance Improvement Journal, 62(1), 17–24.
- Irawan, B., Kurnia, R. A., Sitanggang, E. D., & Achmady, S. (2020). Analisis Tingkat Kepuasan Pasien Terhadap Mutu Pelayanan Rumah Sakit Berdasarkan Metode Service Quality (Servqual). Jurnal Keperawatan Dan Fisioterapi (Jkf), 3(1), 58–64. https://doi.org/10.35451/jkf.v3i1.522
- Jagodic, A., Osmanovic, E., Ikanovic, I., & Hodžić, B. (2023). Treatment of patients in the health care system and achievement of quality services. Magna Scientia Advanced Research and Reviews, 8(1), 053–060. https://doi.org/10.30574/msarr.2023.8.1.0069
- Javid, B., Perveen, T., & Nazar, K. (2023). Patient Satisfaction With the Quality Care Provided By Nurses At the Bedside in Tertiary Health Institute. Biological and Clinical Sciences Research Journal, 2023(318), 1–7. https://doi.org/10.54112/bcsrj.v2023i1.318
- Kanwal, F., Abbasi, K. S., Sufi, H. K., Junaid, K. M., Khan, S. A., & Tuasene, A. (2022). Study of Health Care Services at Tertiary Care Setting and Patient Satisfaction. Pakistan Journal of Medical and Health Sciences, 16(3), 1199–1202. https://doi.org/10.53350/pjmhs221631199
- Khafifah, N., & Amran, R. (2022). Relationship of Health Service Quality with Patient Satisfaction BPJS Puskesmas. Hasanuddin Journal of Public Health, 3(2), 212–222. http://journal.unhas.ac.id/index.php/hjph/article/view/21360
- Kusmaryono, I., Wijayanti, D., & Maharani, H. R. (2022). Number of Response Options, Reliability, Validity, and Potential Bias in the Use of the Likert Scale Education and Social Science Research: A Literature Review. International Journal of Educational Methodology, 8(4), 625–637. https://doi.org/10.12973/ijem.8.4.625
- Lakshmi, C., & Iyer, S. A. (2013). Application of queueing theory in health care: A literature review. Operations Research for Health Care, 2(1–2), 25–39.
- Nuairi, A. Al, Bermamet, H., Abdulla, H., Simsekler, M. C. E., Anwar, S., & Lentine, K. L. (2022). Identifying Patient Satisfaction Determinants in Hemodialysis Settings: A Systematic Review. Risk Management and Healthcare Policy, 15, 1843–1857. https://doi.org/10.2147/RMHP.S372094
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1998). SERVQUAL: a multiple item scale for Measuring consumer perceptions of service quality. Journal of Retaling, 64(1), 12–40.

- Praptianingsih, S. (2007). Kedudukan Hukum Perawat Dalam Upaya Pelayanan Kesehatan di rumah Sakit. Jakarta: PT Raja Grafindo Persada.
- Purnamasari, G. A. P. P., & Noviyani, R. (2023). Penyusunan Standard Operating Procedure (SOP) Evaluasi Perencanaan Perbekalan Kefarmasian di Rumah Sakit X. Indonesian Journal of Legal and Forensic Sciences (IJLFS), 13(1), 30–45. https://doi.org/10.24843/ijlfs.2023.v13.i01.p04
- Radito, T. (2014). Analisis Pengaruh Kualitas Pelayanan Dan Fasilitas Kesehatan Terhadap Kepuasan Pasien Puskesmas. Jurnal Ilmu Manajemen, 11(2), 1–25. https://doi.org/10.21831/jim.v11i2.11753
- Rahmadhani, W., Qomar, U. L., & Dorji, S. (2023). The Effect of Government Policy Management on the Quality of Health Services. Disease Prevention and Public Health Journal, 17(1), 7–12. https://doi.org/10.12928/dpphj.v17i1.5973
- Rosida, Li. A., & Sudiro, S. (2017). Analisis Proses Pengendalian Mutu dalam Pelaksanaan Standar Pelayanan Minimal (SPM) di Instalasi Farmasi RS Keluarga Sehat. Jurnal Manajemen Kesehatan Indonesia, 5(1), 35–42. https://doi.org/10.14710/jmki.5.1.2017.35-42
- Saifudin, A. B. (2009). Buku Acuan Nasional Pelayanan Kesehatan Maternal dan Neonatal. Jakarta : PT Bina Pustaka Sarwono Prawirohardjo.
- Saleh, A. H. M., Radzi, N. A. M., Wan Ahmad, W. S. H. M., & Rashidi, C. B. M. (2019). A survey on readiness of cloud based queuing management system implementation to mobile users. Indonesian Journal of Electrical Engineering and Computer Science, 15(3), 1544–1552. https://doi.org/10.11591/ijeecs.v15.i3.pp1544-1552
- Sánchez-Compaña, M. T., & Sánchez-Cruzado, C. (2019). Design and Validation of a Questionnaire In Order to Assess the Adaptation of Educational Practices to the Flipped Learning Model. Aloma: Revista de Psicologia, Ciències de l'educació i de l'esport Blanquerna, 37(2), 25–33. https://doi.org/10.51698/aloma.2019.37.2.25-33
- Santos, A. B., Calado, R. D., Zeferino, A. C. S., & Bourguignon, S. C. (2022). Queuing Theory: Contributions and Applications in the Field of Health Service Management -A Bibliometric Approach. IFAC-PapersOnLine, 55(10), 210–214. https://doi.org/10.1016/j.ifacol.2022.09.392
- Sari, R. N., & Rismayanti, T. (2023). The Correlation between Service Quality and Patient Satisfaction in the Maternal Emergency Department in 'Anyar Community Health Center. Proceedings of the International Conference on Nursing and Health Sciences, 4(1), 19–24.
- Singh, S., & Singla, M. (2022). Research Methodology. In Corporate Governance Mechanisms and Firm Performance (pp. 10.1007/978-981-19-2460-6_3).
- Supardi, S., Wahyudi, A., & Rukibah, R. (2022). Survei Kepuasan Masyarakat Di Rumah Sakit Umum Daerah Dokter Soedarso Tahun 2021. Ahmar Metastasis Health Journal, 2(1), 46–51. https://doi.org/10.53770/amhj.v2i1.107
- Swarooprani, K. (2022). An Study of Research Methodology. International Journal of Scientific Research in Science, Engineering and Technology, 4099, 537–543. https://doi.org/10.32628/ijsrset2293175
- Taubenberger, C., & Ellger, B. (2023). SOP Versorgung nach außerklinischer Reanimation nicht-traumatischer Ursache. Intensivmedizin Up2date, 19(02), 121–124.
- Taunay, E. G. P. (2010). Analisis Kepuasan Konsumen terhadap Kualitas Pelayanan jasa Kesehatan (Studi Kasus di Rumah Sakit Bhaki Wira Tamtama Semarang). Majalah Ilmiah Universitas Pandanaran, 8(16), 1–19.

- Tyagi, M., Tyagi, P. K., Singh, S., Sathpathy, S., Kant, S., Gupta, S. K., & Singh, R. (2023). Impact of application of queuing theory on operational efficiency of patient registration. Medical Journal Armed Forces India, 79(3), 300–308.
- Ulumiyah, N. H. (2018). Meningkatkan Mutu Pelayanan Kesehatan Dengan Penerapan Upaya Keselamatan Pasien Di Puskesmas. Jurnal Administrasi Kesehatan Indonesia, 6(2), 149–155. https://doi.org/10.20473/jaki.v6i2.2018.149-155
- Wijaya, D., Sari, M. M., & Kurniawan, D. E. (2023). Literature Review on Patient Satisfaction in Antiretroviral Treatment Services. Jurnal Kesehatan Komunitas Indonesia (JKKI), 3(1), 81–94.
- Xie, W., & Xu, H. (2023). Correlation between patient satisfaction and experience in primary care facilities: A cross-sectional study in China. Frontiers in Medical Science Research, 5(6), 81–87. https://doi.org/10.25236/fmsr.2023.050613
- Yunike, Y., Tyarini, I. A., Evie, S., Hasni, H., & Suswinarto, D. Y. (2023). Quality of Health Services to the Level of Patient Satisfaction. Jurnal Ilmiah Kesehatan Sandi Husada, 12(1), 183–189. https://doi.org/10.35816/jiskh.v12i1.990
- Zhang, C., Gong, Y., & Brown, S. (2023). Research Methodology. In Blockchain Applications in Food Supply Chain Management (pp. 77–98). https://doi.org/10.1007/978-3-031-27054-3_3
- Zhang, Y. (2022). Assessing Literacy in a Digital World: Validating a Scenario-Based Reading-to-Write Assessment. Springer Natur.