



Effective Communication in Providing Medication Information and Patient Satisfaction: A Cross-sectional Survey in Denpasar

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ABSTRACT

Background: Pharmacy personnel should provide pharmaceutical care concerning the applicable standards. Furthermore, pharmacy management must consider patient satisfaction to ensure business continuity. Patient subjective factors strongly influence satisfaction. Meanwhile, patient perceptions of pharmaceutical services will change as their experience increases. The pharmacy must improve its services effectively and efficiently. Factors that affect patient satisfaction can assist pharmacies in improving service quality. Effective communication does not require additional resources to improve service quality. The same information can have different effects when presented in different ways.

Objectives: Predict the domain of effective communication that influences patient satisfaction.

Methods: The cross-sectional survey using a valid and reliable questionnaire was conducted in Denpasar. The research involved 100 pharmacy consumers and was taken with a convenience sampling technique. Data were analyzed descriptively, followed by a Chi-square test and multivariate analysis using logistic regression. The research involved four independent variables: pharmacy atmosphere, pharmacist performance, pharmaceutical technical competence, and interpersonal communication competence. Patient satisfaction is the dependent variable in this study.

Results: Communication factors generally affect patient satisfaction in providing drug information. Among all the independent variables tested, interpersonal communication competence plays a significant role in predicting patient satisfaction with a p-value of 0.043 (Logistic regression with 95% confidence level).

Conclusion: Patients who perceive pharmacists as having good interpersonal communication competence are 3,133 times more likely to be satisfied. Thus, pharmaceutical staff must train interpersonal communication skills to provide drug information to achieve patient satisfaction outcomes in pharmaceutical services.

Keywords: Interpersonal communication; pharmacist competency; patient satisfaction

INTRODUCTION

Patient-centered care shows a very high potential for the future improvement of health services.¹⁻⁴ Patient involvement in health management is essential as the need for prevention and management of chronic diseases and lifestyle management increases. Providing drug information with effective communication can increase patient involvement in treatment management.

Effective communication between pharmacy personnel and patients in pharmacies is crucial because pharmacy personnel are the most accessible health workers to the public.⁵ Effective communication can produce the same understanding between the informant (pharmacy personnel) and the recipient of information (patient).

Effective communication also can inspire patients to obey the health provider's instructions. With a trusting relationship, patients can tell their complaints honestly and clearly to assist pharmaceutical personnel in deciding the treatment.⁶ In addition to improving patient health, effective communication can also make patients have a better acceptance of the services provided. The perceived competence of pharmacy personnel and good interaction with pharmacy personnel are related to patient satisfaction.⁷

Communication to provide drug information in drug dispensing/delivery activities is the most common interaction between pharmacy personnel and patients. Patients will feel satisfied if health workers can build good relationships with them through communication techniques and attitudes while serving them.⁸ Haverfield et al. stated that the relationship between patients and health workers is the core of health services.² Thus, the factors related to the development of pharmaceutical service quality must be studied in more depth so that the quality of pharmaceutical services can be optimized.^{7,9}

Patient satisfaction is an indicator of success in maintaining the quality of health services. However, many factors affect patient satisfaction, some of which are subjective and challenging to assess.⁵ Patient satisfaction with pharmaceutical services is subjective because it reflects the preferences, expectations, and reality of the services received by patients.^{5,7} The quality of pharmaceutical services can affect omzet¹⁰ because satisfied patients will be loyal to service providers, tend to reuse the same services, and recommend the service provider to others.¹¹ Information received by patients, experience in the use of similar services, and the patient's impression of the organization that provides these services can affect the mindset and patient's response to pharmaceutical services.¹² Patients will continuously form new perceptions of their previous experiences. So, pharmacy service providers must continuously improve their services to form perceptions that exceed patients' expectations. Adding more types of service to improve patient perception will require additional resources. In contrast, effective communication can make a positive impression without increasing the type of task in the pharmacy.

Many studies have proven the benefits of effective communication in pharmaceutical services.² The quality of service shown by health workers correlates with patient loyalty, and satisfaction mediates the correlation.¹³ Accordingly, pharmacists need to improve the quality of communication in pharmaceutical services.¹⁴ Effective communication in the provision of drug information has a significant effect on patient satisfaction.^{15,16} Thus, effective communication in providing drug information is essential. The effect of factors that support effective communication to produce outcomes in patient satisfaction needs to be analyzed further. Ayele, 2020 stated that a comprehensive understanding of patient satisfaction and its determining factors is crucial in improving the quality of service.¹⁷ Thus, researchers want to know the effective communication factors that predict patient satisfaction. The study was conducted in the city of Denpasar because, in line with the results of research carried out before,^{18,19} 9% of pharmacies in the city of Denpasar still need to improve the quality of their services.

METHODS

Study design

This study uses a cross-sectional design involving four independent and one dependent variable. The four independent variables are factors supporting effective communication. Independent variables of the study consisted of pharmacy atmosphere, pharmacy personnel appearance, pharmacy technical competence, and interpersonal communication competence of pharmacy personnel. The dependent variable in this study is patient satisfaction.

Population and samples

The study population was all patients who had received drug information in pharmacies in Denpasar, the number of samples determined by the formula.²⁰ ;

$$n = \frac{Z_1^2 - \frac{\alpha}{2} \cdot p(1 - p)}{d^2}$$

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.1)^2} = 96.04$$

Description: n: minimum sample quantity; $Z_1^2 - \frac{\alpha}{2}$: degree of confidence 95% (1,96); p: proportion of population 50% (0,5); d: precision/deviation rate against population 10% (0,10)

The minimum sample based on the formula is 96 respondents. Respondents were taken from 4 districts in Denpasar City evenly. Respondents must meet the following inclusion and exclusion criteria. Respondents are at least 18 years old, have been to the pharmacy more than once before the study, are willing to complete a questionnaire, and have good communication. Respondents were excluded if they did not fill out the questionnaire completely.

Study instruments

A closed questionnaire with a Likert scale was prepared based on the results of qualitative research carried out previously by the researcher.²¹ combined with similar questionnaires from literature studies.^{22,23-27} Some experts, specifically researchers with experience preparing questionnaires and pharmacist practitioners, reviewed the questionnaire. The expert ensures the instrument's face and logical validity so the questionnaire can retrieve the data according to the purpose of the study. Questionnaires were distributed to 40 respondents besides the study sample to ensure statistical validity and reliability. The statistical validity of the questionnaire was analyzed using Pearson's product-moment correlation technique by comparing "r count" and "r table." Reliability measurement is done by the one-shot method and determined by the Cronbach alpha value.

Data collection

The data was collected using questionnaires distributed by contacting prospective respondents through social media (WhatsApp). The researcher explained the study before prospective respondents expressed their approval. The respondents that meet the inclusion criteria fill out the questionnaire in a G-form. The study was conducted from December 2022 to May 2023.

Data Analysis

The phenomenon of ceiling effect often occurs in the measurement of patient experience that is self-reported. The phenomenon occurs when respondents' answers are collected around the answer choices with maximum scores, and the data is gathered at the tail of the Gaussian curve.²⁸ To overcome the possibility of false positive effects, the researchers gave a choice of five options.²⁹ and performed data grouping using a binary scale.

The effective communication factor is coded as "supportive" if the patient assesses the environmental conditions and services of the pharmacy above the average score; on the contrary (below the average score), it is coded as "not supportive." Satisfaction is coded as "satisfied" if the respondent's score exceeds the average. Conversely, satisfaction is coded as "dissatisfied" if the respondent scores below average.

The correlation between each independent and dependent variable was analyzed using the Chi-square test. Bivariate analysis (Chi-square) is also beneficial as a preliminary test multivariate analysis of logistic regression. Multivariate analysis simultaneously tests the relationship between all independent and dependent variables. Researchers used a multivariate predictive model test. All independent variables are placed equally without considering the presence of confounding variables. SPSS 21 software performs statistical tests at 95% confidence intervals in this study.

RESULTS AND DISCUSSION

The questionnaire's validity and reliability analysis and respondents' characteristics

A preliminary questionnaire draft comprised thirty-two statements to assess effective communication factors and six statements to assess patient satisfaction. The statements are valid if they have an r count > 0.321 (the r table for 40 test respondents). Twenty-four statements of effective communication factors and six statements of patient satisfaction remain in this section. The reliability test showed Cronbach's alpha value of the communication factors questionnaire was 0.921 (excellent reliability³⁰) and patient satisfaction was 0.832 (high reliability³⁰). Thus, the instrument met the requirements of validity and reliability and can be used to retrieve research data.

The research involves twenty-five respondents from each district in Denpasar. A total of 100 respondents from four Denpasar districts participated in this study. There were six characteristics of respondents collected in this study (Table I).

Table I. Characteristics of research respondents

| Characteristics based on demographics | | Number of respondents | Percentage (%) |
|--|-------------------------------|-----------------------|----------------|
| Age | Adult (19-44 years old) | 86 | 86 |
| | Pre-elderly (45-59 years old) | 14 | 14 |
| Gender | Men | 28 | 28 |
| | Female | 72 | 72 |
| Occupation | Non-Health Workers | 54 | 54 |
| | Health Workers | 46 | 46 |
| Visits to the pharmacy in the past month | Yes | 90 | 90 |
| | No | 10 | 10 |
| Cultural Background | Born in Bali | 91 | 91 |
| | Not Born in Bali | 9 | 9 |
| Relationship with drug informants | Unknown | 81 | 81 |
| | Familiar Enough | 10 | 10 |
| | Very Familiar | 9 | 9 |

Distribution of the assessment results of the factors of effective communication and satisfaction

Communication theory³⁰ state that several factors can be a disruptor (noise) in the communication process. Therefore, various factors work on the occurrence of effective communication.³¹ Factors of effective communication in this study are the conditions of pharmacy and services related to effective communication. This study did not measure effective communication as a mediating factor during the interaction. The effect of effective communication factors is measured directly on patient satisfaction.

There are four factors/domains of effective communication assessed. The first domain is the atmosphere of the pharmacy. More than 50% of respondents assessed that the pharmacy atmosphere supported effective communication (Table II). However, the results showed that pharmacies in Denpasar can still improve environmental conditions to support effective communication. Supporting this statement, other researchers stated that 48.5% of pharmacy services in Denpasar City are still below the average.¹⁸ An unfavorable pharmacy environment can hinder pharmaceutical personnel in counseling^{32,33} and interfere with effective communication processes.⁴ Patient-health worker interaction, physical environment, and internal management processes are the most influential factors in patient satisfaction.³⁴ Waiting times can also affect patient comfort. The time spent in the waiting room results in patients needing more time to communicate with health workers regarding their illness and treatment; it can also reduce satisfaction rates.^{11,35} Some patients sometimes refuse to consult after waiting too long in the queue. They may feel reluctant because counseling will prolong the waiting time of others in queue.³²

The second domain assessed in this study is the appearance of pharmaceutical personnel. More than 50% of respondents stated that the appearance of pharmacy personnel has supported effective communication (Table II). However, the appearance of pharmacy personnel can still be improved, especially in the use of cosmetics and accessories. Arumsari, 2017 stated that health workers who ignore appearance in conveying information to patients can experience role conflicts due to their psychological and physical condition.³⁶ The appearance of a communicator becomes one of the supporting factors in communication.³⁷ Appearance when conveying information to the patient affects the confidence of pharmaceutical personnel and the impression received by the patient. Health workers should be able to give an appearance that supports their profession. Lawan, 2022 states that pharmaceutical personnel with a neat and polite appearance can support patient satisfaction.³⁸

The third domain assessed in this study is the competence of pharmaceutical personnel related to their authority in performing pharmaceutical work. According to Indonesian Government Regulations, pharmaceutical work must be done by people with expertise and authority.³⁹ The results showed two indicators that some surveyed did not consider supportive (Table II). As many as 60% of respondents stated that pharmaceutical personnel have not been able to convey the problems that patients may face related to drug use. Only 50% of respondents stated that pharmacy personnel can provide reliable information.

The involvement of pharmaceutical personnel in health services will provide many benefits. However, pharmaceutical workers have yet to play an optimal role in health services. Misunderstanding the duties and

Table II. Descriptive analysis of effective communication factors

| No | Indicator | Category | |
|---|---|----------|-------------|
| | | Support | Not Support |
| Pharmacy atmosphere | | | |
| 1. | Sound intensity in pharmacies | 63 | 37 |
| 2. | Health Information Facilities (brochures/posters) are available in sufficient quantities | 64 | 36 |
| 3. | Waiting time to get service | 55 | 45 |
| Appearance of Pharmacy personnel | | | |
| 4. | Outfit of Pharmacy personnel | 82 | 18 |
| 5. | Pharmacy personnel's hairdressing/shaving | 74 | 26 |
| 6. | Cosmetics and accessories used by Pharmacy personnel | 55 | 45 |
| Pharmaceutical Technical Competence | | | |
| 7. | Pharmaceutical personnel can provide solutions related to drug use problems | 53 | 47 |
| 8. | Pharmaceutical personnel can explain the drug well | 52 | 48 |
| 9. | Pharmacy personnel can help choose the drugs | 60 | 40 |
| 10. | Pharmacy personnel inform problems that may occur during treatment | 40 | 60 |
| 11. | Pharmaceutical personnel provide reliable information | 50 | 50 |
| 12. | Pharmaceutical personnel are meticulous in handing over drugs to avert drug delivery errors | 63 | 37 |
| Interpersonal Communication Competence | | | |
| 13. | Pharmacy personnel show hospitality by smiling and greeting patients | 52 | 48 |
| 14. | Pharmacy personnel to be polite and professional | 60 | 40 |
| 15. | Pharmacy personnel involve patients to find solutions to health problems experienced | 67 | 33 |
| 16. | Pharmacy personnel consider the patients about the drug's price. | 56 | 44 |
| 17. | 17. Explanation of pharmaceutical personnel is easy to understand | 43 | 57 |
| 18. | Pharmacy personnel ensure patients understand the explanation given | 37 | 63 |
| 19. | Pharmacy personnel speak with confidence | 51 | 49 |
| 20. | Pharmacy personnel listen attentively and respond to patient questions | 45 | 55 |
| 21. | Pharmacy personnel can make patients feel safe using the drug | 45 | 55 |
| 22. | Explanation of pharmaceutical personnel does not take time | 41 | 59 |
| 23. | The counseling can maintain the patient's privacy | 40 | 60 |
| 24. | Pharmacy personnel quickly understand patients' explanation | 47 | 53 |

authority of pharmaceutical workers resulted in their needing help to demonstrate their role in health services optimally.³³ Some patients state that health treatment is the task of the doctor and not the pharmaceutical personnel, especially concerning prescribed drugs.⁴⁰

Contrary to the results of this study, Amanah, 2016 stated that 85% of respondents felt that the information obtained from pharmaceutical personnel was correct and accurate.⁴¹ Pharmacy personnel must apply standards of pharmaceutical service in pharmacies when carrying out their duties. Pharmacists need pharmaceutical competence to run the practice according to the standard. The basic science of pharmacy mastered by pharmacy personnel will affect their confidence. Pharmacy basic science competency also influences the pharmacy personnel's ability to arrange patient drug information. Pharmacists have to make sure patients understand how to use their medicines.⁴²

The fourth domain assessed in this study is the competence of pharmaceutical personnel in interpersonal communication. The results showed that only five among the¹¹ interpersonal communication indicators expressed "supportive" by most patients. Several competencies are considered not optimal, including the ability of pharmaceutical personnel to provide easy-to-understand explanations, the ability of pharmaceutical personnel to ensure patients have understood the explanations given, the ability of pharmaceutical personnel to listen attentively and respond to patient questions, the ability of pharmaceutical personnel to provide a sense of secure in the use of drugs, the ability of pharmaceutical personnel to provide concise explanations, and the ability of pharmaceutical personnel to understand patients and maintain patient privacy.

In line with the study's results, other studies also show that the communication skills of pharmacy staff with consumers still need to be improved. The friendliness indicator gets the lowest rating from patients.⁴³ Pharmaceutical workers with empathy for patients will support effective communication, and unfriendly attitudes can hinder effective communication.³⁶ Several other studies suggest empathy can reduce the likelihood of conflict and increase patient trust in doctors.^{3,44,45} The attitude of pharmaceutical personnel, simple language, speech intonation with a pleasant communicative tone, and clear drug information can affect patient satisfaction.⁴⁶

The provision of pharmaceutical counseling require relational skills and communication skills.⁴⁷ Lack of communication skills hinders effective communication because the patient will find it challenging to understand the message conveyed; even the patient from the beginning will not be interested in communicating, so they will not give full attention to the information submitted by pharmaceutical personnel. Kaae, 2014 stated that patients needed to understand the benefits of drug information.⁴⁰ There are still differences in perception between pharmacy personnel and patients regarding information that patients must understand when using medication.⁴² Patients sometimes do not get what they need, but if communication is comfortable, they will still feel satisfied even though the service does not meet their needs.

The patient will be satisfied if a service provider can fulfill the patient's needs, desires, and expectations. Satisfied patients will be willing to use the same services in the future and recommend them to others. The results showed that most respondents were unsatisfied with pharmaceutical services on all assessment indicators (Table III). Other research states that satisfaction with the services provided can occur if the performance of health workers is according to service standards, they have a friendly attitude, and they show empathy for patients.⁴⁸ The friendliness of employees or pharmacy personnel is an essential factor in forming patient loyalty to pharmacies. When the patient is not sensitive to the drug's price, the employees' friendliness determines the patient's loyalty. The close interaction between employees and customers can make pharmacy personnel better understand customer expectations and determine how to deliver services.

The study's results contradicted those of other studies that stated 83.5% of patients were satisfied with pharmaceutical services at.⁴⁹ Patient satisfaction is assumed to be the value of the services provided by pharmaceutical personnel, so this will increase the willingness of patients to recommend and improve the use and loyalty to the service.⁵⁰ Thus, the better the quality of services provided, the higher the level of patient satisfaction, and vice versa. If the quality of services is not good, patient satisfaction will decrease.⁵¹

Bivariate analysis

The bivariate test determines the influence of effective communication factors on patient satisfaction. The overall test of effective communication factors showed that effective communication factors affect patient satisfaction with a P value < 0.001 (CI 95%). Suppose respondents assess the environmental conditions and services provided to support effective communication. In that case, they will 5,538 (min 2,342 max 13,100) times to feel satisfied when compared with respondents who assess the environmental conditions and services in pharmacies do not support effective communication.

The chi-square test on each factor (domain) showed that pharmacy personnel's appearance, technical competence, and interpersonal communication competence significantly affected patient satisfaction (Table IV). The atmosphere of the pharmacy did not show a significant effect on patient satisfaction. Table IV exhibits the effect of each independent variable on the dependent variable. Although the pharmacy atmosphere does not significantly affect patient satisfaction, variables with a P-value<0.25 are eligible for multivariate analysis. Therefore, all independent variables are eligible to be included in the Logistic Regression Test.

Multivariate tests exert a predictive model logistic regression test. The logistic regression examines the effect of all independent variables on the dependent variable simultaneously. The analysis be solved using a backward method with a 95% confidence level. The output showed that interpersonal communication skills significantly affect patient satisfaction (table V). Only one factor among the four tested factors significantly

Table III. Descriptive analysis of patient satisfaction

| No | Indicator | Category | |
|----|--|-----------|---------------|
| | | Satisfied | Not satisfied |
| 1. | Satisfaction with pharmaceutical services provided | 32 | 68 |
| 2. | Willingness to recommend related pharmacies to others | 40 | 60 |
| 3. | Return to the same pharmacy if anything is needed | 48 | 52 |
| 4. | Satisfaction with the overall service provided at the pharmacy | 41 | 59 |
| 5. | The patient is happy to consult with pharmaceutical staff at the relevant pharmacy | 31 | 69 |
| 6. | Ask the pharmacist when the patient has questions about the drug | 37 | 63 |

Table IV. Output of Chi-square analysis on indicators of effective communication factors toward patient satisfaction

| Variable | Satisfied | | Not satisfied | | Total | P-value | OR | CI (95%) | |
|---|-----------|------------------|---------------|------------------|-------|---------|-------|----------|--------|
| | n | n / Σ (%) | n | n / Σ (%) | | | | Min | Max |
| A. Pharmacy Atmosphere | | | | | | | | | |
| Satisfied | 22 | 62.9% | 13 | 37.1% | 100 | 0.126 | 2.101 | .905 | 4.877 |
| Not Satisfied | 29 | 44.6% | 36 | 55.4% | | | | | |
| B. Appearance of Pharmacy Personal | | | | | | | | | |
| Satisfied | 42 | 58.3% | 30 | 41.7% | 100 | 0.033 | 2.956 | 1.176 | 7.425 |
| Not Satisfied | 9 | 32.1% | 19 | 67.9% | | | | | |
| C. Pharmaceutical Technical Competence | | | | | | | | | |
| Satisfied | 36 | 69.2% | 16 | 30.8% | 100 | <0.001 | 4.950 | 2.120 | 11.559 |
| Not Satisfied | 15 | 31.3% | 33 | 68.8% | | | | | |
| D. Interpersonal Communication Competence | | | | | | | | | |
| Satisfied | 33 | 73.3% | 12 | 26.7% | 100 | <0.001 | 5.653 | 2.373 | 13.468 |
| Not Satisfied | 18 | 32.7% | 37 | 67.3% | | | | | |
| E. Overall effective communication faktors | | | | | | | | | |
| Satisfied | 34 | 72% | 13 | 28% | 100 | <0.001 | 5.536 | 2.342 | 13.100 |
| Not Satisfied | 17 | 32% | 36 | 68% | | | | | |

affects patient satisfaction. Opinions supporting the study's results stated that clinical skills alone are insufficient to develop a closer relationship with patients. These competencies have no central effect in reducing conflicts with patients.³ The pharmacy personnel must balance the relational skills and pharmaceutical competence.⁵²

The appearance of pharmacy personnel and pharmaceutical technical competence showed a significant effect on the bivariate test but did not show a significant effect on the multivariate test. In The Chi-Square test, the appearance of pharmaceutical workers has a P-value of 0.033, CI 0.95, and OR 2.956, the pharmaceutical technical competence has a P-value <0.001, CI 0.95, and OR 4.950. The bivariate test only tests one independent variable without considering the existence of other independent variables. In contrast, the multivariate test considers the existence of other independent variables. Therefore, each of the analyzed variables adapts to the other variables tested. In the presence of four independent variables simultaneously, the influence of several variables can become insignificant. In the multivariate test, interpersonal communication competence significantly affects patient satisfaction (P-value = 0.043, CI 0.95, adjusted OR 3.133) by considering the presence of other independent variables. The multivariate test showed that the interpersonal communication competence factor is the most prominent in estimating patient satisfaction. Patients being satisfied are 3,133 (min 1,037; max 9,470) times higher if the pharmacy staff shows interpersonal communication competence than if the pharmacy staff cannot show interpersonal communication competence. The model obtained from the logistic regression test can explain 24.0% (Nagelkerke R2) of the variation in patient satisfaction. The model was able to classify 69.0% of cases correctly.

In line with the study's results, several other studies also stated that interpersonal communication influenced patient satisfaction.^{7,53} Interpersonal communication between pharmacy personnel and patients is essential. The ailment expressed by patients is constructive for pharmacy personnel to take further action, such as determining the necessary therapy. Interpersonal relationships are established within the pharmaceutical

Table V. Result of Multivariate test

| Variable | Coefficient | Standard Error | Wald | df | P-value | OR | CI (95%) | |
|--|-------------|----------------|-------|----|---------|-------|----------|-------|
| | | | | | | | Min | Max |
| Pharmacy Atmosphere | 0.098 | 0.500 | 0.039 | 1 | 0.844 | 1.103 | 0.414 | 2.942 |
| Appearance of Pharmacy Personal | 0.365 | 0.547 | 0.446 | 1 | 0.504 | 1.440 | 0.493 | 4.205 |
| Pharmaceutical Technical Competence | 0.733 | 0.582 | 1.588 | 1 | 0.208 | 2.082 | 0.665 | 6.516 |
| Interpersonal Communication Competence | 1.142 | 0.564 | 4.095 | 1 | 0.043 | 3.133 | 1.037 | 9.470 |

service and can occur outside it. Policymakers should consider interpersonal interventions because they have the potential to have multiple impacts.² Interpersonal skills have a more significant impact on patient satisfaction than the provision of new services.⁵

The study involved pharmacies representing each district in the city of Denpasar. Researchers expect the samples taken to be able to reflect the condition of the population well. The researcher prepared the questionnaire using many research libraries, one of which took samples in Denpasar. Some weaknesses also offset some of the strengths of such research. The method used in this study (cross-sectional) cannot adequately explain cause and effect. The self-reported questionnaire also complies with some assumptions to get a valid result. The obtained prediction model was able to classify 69.0% of cases correctly, so further studies on a broader population are still needed.

CONCLUSION

Interpersonal communication competence of pharmaceutical workers can predict patient satisfaction (P-value <0.043, CI 0.95, Adjusted OR 3.133). The better the interpersonal communication of pharmaceutical workers, the higher the patient satisfaction in pharmacies Denpasar. However, pharmacy personnel must also consider their appearance and pharmaceutical technical competence in providing drug information. Both factors significantly affected patient satisfaction in bivariate analysis using the Chi-Square Test, even though it was insignificant in the logistic regression test.

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CONFLICT OF INTEREST

None to declare.

STATEMENT OF ETHICS

The study obtained Ethical clearance No. 2089 / UN14.2.2.VII.14 / LT/2022, published on 3rd August 2022 by the Research Ethics Committee of the Faculty of Medicine, Universitas Udayana.

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