

The relationship between service quality and customer satisfaction: a case study at Nh Beji Pharmacy

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Abstract: Customer satisfaction is a critical indicator of the quality of pharmaceutical services and products pharmacies provide. It holds strategic importance in the pharmacy sector, significantly influencing repeat patronage and referrals. Satisfied customers are more likely to recommend the pharmacy to others, which can substantially contribute to the business's long-term growth. This study identifies service variables at Nh Beji Pharmacy that enhance customer satisfaction and evaluates their impact on patients' loyalty and their propensity to refer new customers. By exploring the link between customer satisfaction, repeat business, and referrals, the study aims to highlight the value of customer-focused services in pharmacies. Through interviews with 55 patients randomly selected from service records and provided informed consent for the 2019-2020 period, the study identified seven service variables that significantly boost customer satisfaction at Nh Beji Pharmacy. The findings demonstrate a notable correlation between customer satisfaction and patients' willingness to return and recommend the pharmacy, underscoring the importance of prioritizing customer satisfaction in pharmaceutical service delivery.

Keywords: customer satisfaction, patient loyalty, pharmaceutical service quality, pharmacist services, self-medication

Introduction

Health is comprehensively defined as complete physical, mental, spiritual, and social well-being, enabling individuals to lead socially and economically productive lives [1]. In today's globalized world, there is a growing recognition of health as a vital asset, leading to an increased demand for health facilities [2]. A common practice among the public is self-medication, where individuals purchase medications directly from pharmacies without a prescription [3]. This trend underscores the need for pharmacists to guide customer in safely and effectively selecting and using medications, ensuring quality health outcomes.

Pharmacies serve as health service facilities where pharmacists engage in pharmaceutical practices, which are crucial in enhancing the quality of life for individuals facing minor illnesses [4]. Pharmacists support customers in self-medication by recommending drugs that alleviate symptoms, thereby fostering an environment of patient-oriented care. This approach contributes positively to individual health outcomes and the growth of the pharmacy business. Evaluating

customer satisfaction within pharmacies offers a metric for assessing the effectiveness of pharmacies in delivering services centered around patient needs. Customer satisfaction is achieved when the products and services align with customer expectations and perceived value [5].

Customer value is shaped by how customers view the quality and worth of a product or service, influencing their loyalty. The higher the value customers perceive, the more likely they are to engage in a transaction or establish a relationship. Customers tend to choose providers that deliver the highest value [6]. Customer value encompasses the quality and benefits of a product or service and is crucial in determining customer satisfaction [7].

A direct link exists between service quality and loyalty, mediated by customer satisfaction. High service quality results in customer satisfaction, which occurs when the service meets or surpasses customer expectations. Satisfied customers are likely to become loyal [8]. The value influencing customer satisfaction correlates with the product's benefits and the service

quality. As pharmacists enhance product benefits and service quality, customer value and satisfaction increase. In such scenarios, price competition with other pharmacies becomes less significant. This indicates that customers find it justifiable and are prepared to pay a specific price for the benefits of the products and superior service quality offered by professional pharmacists in pharmacies.

A thorough evaluation must be conducted to ensure the quality of pharmaceutical services in pharmacies. According to the Minister of Health of the Republic of Indonesia's regulation No. 73 of 2016 on Pharmaceutical Service Standards in Pharmacies, the quality of clinical pharmacy services can be assessed through various methods, including audits, reviews, surveys, and observations [9]. These standards aim to enhance the quality of pharmaceutical services, provide legal certainty for pharmaceutical professionals, and safeguard patients and the public from the irrational use of drugs [10]. Specifically, for pharmaceutical services in pharmacies, it is crucial to evaluate the quality of clinical pharmacy services through surveys and employing questionnaires for data collection [11].

This study investigates seven service variables provided by pharmacists at Nh Beji Pharmacy, which are believed to contribute significantly to customer satisfaction. It aims to assess the impact of these service variables on patients' loyalty and their inclination to recommend the pharmacy to others, thereby generating referrals. Moreover, this research explores the relationship between customer satisfaction, the likelihood of repeat patronage, and the propensity to endorse the pharmacy's products or services.

Methods

Data collection for this study was conducted through an online questionnaire. A total of 55 respondents were randomly selected throughout 2019-2020. The questionnaire, which was available online, was administered using a prospective method from July 16 to July 30, 2020. Before participating, respondents were requested to give informed consent to complete the questionnaire.

The questionnaire comprised seven closed-ended questions designed to gauge patient satisfaction with the pharmacists' role in delivering pharmaceutical services at NH Beji Pharmacy. These questions served as variables to assess their impact on customer

satisfaction concerning the pharmacy's products and services. The questions asked were as follows:

1. Do you prefer the presence of pharmacists at the pharmacy or their absence?
2. Would you instead purchase medication with a pharmacist's consultation or without any consultation?
3. Would you like the pharmacist to inquire about your medical history before purchasing medication, or would you prefer to buy the medication without such interaction?
4. Do you have a preference for generic medicines or branded medicines?
5. Would you like your medication purchase to be documented by the pharmacist, or would you prefer no documentation?
6. After purchasing medication, would you appreciate a follow-up from the pharmacy, or would you prefer no follow-up?
7. Do you value receiving information about drug products more, or are you more interested in disease prevention and treatment education?

Data analysis

The normality of the data was assessed using the Kolmogorov-Smirnov test to determine the appropriate correlation test for analyzing the relationship between variables. For datasets with a normal distribution, the Pearson Correlation test was applied. Conversely, for datasets that did not follow a normal distribution, the Spearman-Rho test was used. The strength of the relationship between variables was categorized based on the correlation coefficient value as follows: a very weak relationship is indicated by a correlation coefficient value between 0.00 and 0.25, a moderate relationship was identified by values between 0.26 and 0.50, a strong relationship was denoted by values between 0.51 and 0.75, a very strong relationship was characterized by values between 0.76 and 0.99, and a perfect relationship was signified by a value of 1.00.

Results

Patient satisfaction with pharmaceutical services at the pharmacy

A significant majority (98%) of respondents preferred having a pharmacist present at the pharmacy, citing the importance of receiving personalized advice for selecting the appropriate medication for minor

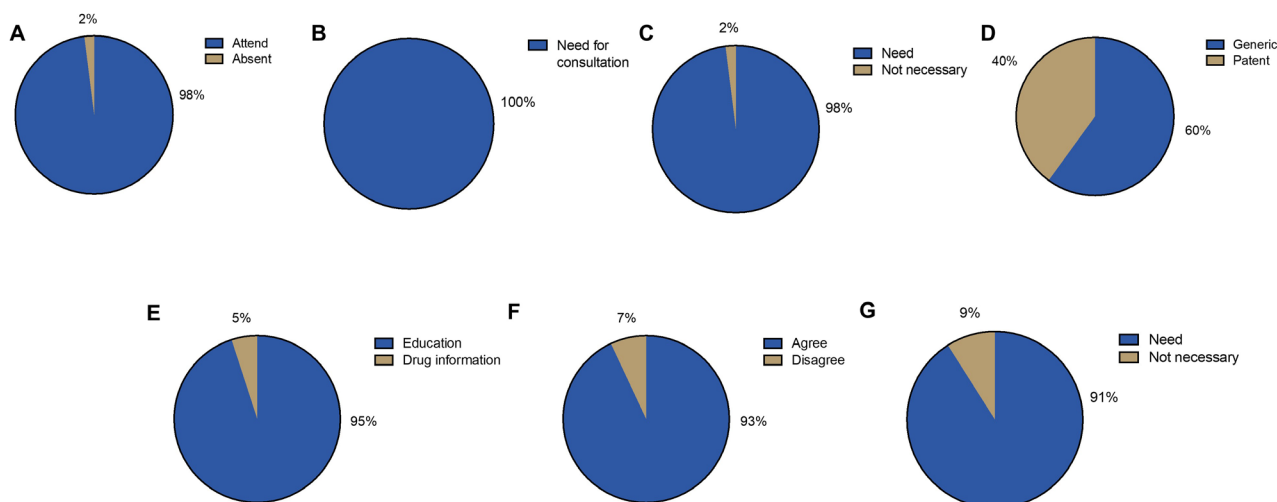


Figure 1. Patient satisfaction levels across various aspects of pharmaceutical services. (A) pharmacist presence, (B) consultation, (C) information gathering, (D) drug selection, (E) documentation, (F) follow-up, (G) education.

illnesses and obtaining comprehensive information about the medications. Only a tiny fraction (2%) indicated satisfaction with the services provided by pharmacy technicians instead (Figure 1A).

The need for pharmacist consultations during self-medication was unanimous among respondents (Figure 1B). They highlighted that a pharmacist review of their medication history enhanced their confidence and clarity in medication intake.

Similarly, 98% of respondents appreciated the pharmacists' efforts in exploring their treatment history, noting that this practice helped them identify the most suitable medication based on individual factors such as allergies, drug efficacy, and cost. They also valued the increased sense of care this service provided. Conversely, due to time constraints, the remaining 2% preferred a quicker transaction process without a detailed medical history review (Figure 1C).

Regarding medication preferences, 60% of respondents favored generic drugs, attributing their choice to the effectiveness and suitability of these medications. The other 40% expressed a preference for branded drugs, motivated by perceived quality and affordability (Figure 1D).

Medication documentation by pharmacists was well-received by 93% of the respondents, who believed that it demonstrated a higher level of care and allowed for better monitoring and adjustments in treatment efficacy. However, 7% objected to documentation, citing privacy concerns (Figure 1E).

Follow-up services after medication purchase were appreciated by 95% of the respondents, who saw them as a manifestation of pharmacists' responsibility and care towards patients (Figure 1F).

Finally, a significant majority (91%) preferred receiving disease prevention and cure education, whereas the remainder favored obtaining detailed information about medicinal products (Figure 1G). This indicates a strong patient interest in understanding broader health management beyond just medication specifics.

Correlation between satisfaction and willingness to return

The analysis of the correlation between patient satisfaction and their willingness to return to Nh Beji Pharmacy involves preprocessing of satisfaction questionnaire data. Satisfaction levels were categorized as "satisfied" (satisfaction value $x \geq 6$), assigned a value of 1, and "not satisfied" (satisfaction value $x < 6$), assigned a value of 0. The Kolmogorov-Smirnov test was applied to assess the data distribution, yielding a value of $0.000 < 0.05$. This result indicates that the dataset does not follow a normal distribution, necessitating nonparametric statistical methods for analysis.

Given the non-normally distributed nature of the data, the Spearman rho test was employed to examine the relationship between patient satisfaction and their willingness to return to the pharmacy. The willingness to return was measured directly by asking patients

if they intended to revisit Nh Beji Pharmacy, with responses coded as 1 for willingness to return and 0 for no willingness to return.

The analysis revealed a significant two-tailed significance (sig.) value of 0.000, indicating a significant correlation between patient satisfaction and their likelihood of returning to the pharmacy. The positive correlation coefficient suggests that this relationship is unidirectional; as patient satisfaction increases, so does the likelihood of their return. The correlation coefficient was found to be 0.549, denoting a strong relationship between the two variables. This significant correlation is confirmed at the 0.01 significance level, highlighting the strong correlation between patient satisfaction and their willingness to return the pharmacy.

Relationship between satisfaction and willingness to recommend

The correlation test between satisfaction and willingness to recommend was carried out to see if there is a significant relationship. Satisfaction data were obtained following the previous explanation, while willingness to recommend was obtained from the answer data of each patient. For each patient who recommends, a value of 1 is given, while for patients who are not willing to recommend, a value of 0 is given.

The results of the analysis obtained the sig value. (2-tailed) is 0.000, this shows a significant relationship between patient satisfaction and recommendations. The correlation coefficient value is positive, so the relationship between the two variables is unidirectional, meaning the more satisfaction increases, the more patients are willing to recommend it. The correlation coefficient value can also be used to see how closely the relationship between the satisfaction variable and the recommended variable is 0.461 or sufficient. The correlation is significant at a significance level of 0.01, meaning that there is a significant relationship that is sufficient and unidirectional between the satisfaction variable and the willingness to recommend.

The relationship between willingness to come back to willingness to recommend

The data analysis regarding the relationship between patients' willingness to return to the pharmacy and their willingness to recommend it to others yielded significant findings. The statistical significance (sig.) value, obtained using a two-tailed test, was 0.000,

indicating a substantial relationship between the willingness to return and recommend the pharmacy.

The positive correlation coefficient underscores a unidirectional relationship between these two variables, meaning that as patients' willingness to return increases, their propensity to recommend the pharmacy also grows. This correlation is significant and very strong, as evidenced by the correlation coefficient value of 0.858. This value suggests a very close relationship between patients' satisfaction (as it influences their willingness to return) and their willingness to recommend the pharmacy to others.

The strength of this correlation is further emphasized by its significance at the 0.01 level, highlighting a very strong and significant relationship between the willingness to return and recommend the pharmacy. This suggests that initiatives aimed at increasing patient satisfaction and encouraging repeat visits could also significantly boost the likelihood of patients recommending the pharmacy, thus reinforcing the importance of focusing on patient satisfaction and loyalty strategies.

Discussion

Patient satisfaction with pharmacy services was assessed through various factors, including the availability of a pharmacist, pharmacist consultations, willingness to review medical history, preference for affordable patented medicines, documentation practices, follow-up procedures, and educational efforts. These criteria align with those identified in previous studies [12].

The findings demonstrate a significant correlation between patient satisfaction and the frequency of return visits to the pharmacy. This result corroborates earlier research indicating that satisfied patients are more likely to revisit the pharmacy, thereby increasing sales [13]. Furthermore, a strong relationship exists between patient satisfaction and their willingness to recommend the pharmacy to others. This observation is consistent with Utami's study, which linked satisfaction to consumer loyalty and the propensity to recommend the pharmacy [8].

Additionally, the study found a significant connection between the willingness to return and to recommend the pharmacy. This supports prior findings that complete satisfaction fosters a positive relationship between a patient's likelihood of returning and their willingness to advocate for the pharmacy [14].

This investigation into seven customer satisfaction variables focuses on a specific market segment familiar with the pharmacists' role in supporting self-medication. However, the relevance of this study may not extend to customers who do not recognize the critical role pharmacists play. For such individuals, the primary concerns tend to revolve around the availability of a wide range of drug products and affordability, rather than the presence of a pharmacist for guidance in self-medication practices.

Conclusion

The study conclusively establishes a significant relationship between pharmacist service variables and customer satisfaction, underpinned by the quality of service provided. The satisfaction derived from pharmacist services is significantly correlated to patients' willingness to engage in repeat patronage (becoming regular customers) and to recommend the pharmacy's services to others. This highlights the pivotal role of pharmacist-led services in enhancing customer satisfaction, loyalty, and promoting the pharmacy's services through word-of-mouth recommendations.

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Conflict of interest

None.

Author contributions

AB plays a role in drafting concepts, leading research, and compiling publication texts. AB, DYP, NR, EW, ADD, DC collect data and discuss research results. AB, EW contributed to data analysis. AB, DYP, NR, EW, ADD, DC compiled and wrote the publication text.

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