Patients’ Level of Satisfaction from Pharmaceutical Services Provided by Private Pharmacies Using the SERVQUAL Model Analysis

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Abstract

Customer satisfaction is an essential aspect of quality of service. In healthcare, customer satisfaction, also known as patient satisfaction is an indicator for measuring the quality of service and how happy the patient is with the professional services received in the industry. This parameter is essential for all healthcare organizations, as it is used for improving service delivery and strategic goals. Therefore, this study aimed to examine the patients’ level of satisfaction regarding professional pharmaceutical services provided by certified pharmacists of 14 private pharmacies in the Kasihan Subdistrict, Bantul Regency, Special Region of Yogyakarta, Indonesia. The non-experimental descriptive design with a cross-sectional method was employed in this study. It involved 308 participants and was conducted from November 2018 to May 2019. The patients’ level of satisfaction was measured using the Service Quality (SERVQUAL) approach involving five dimensions, namely; reliability, responsiveness, assurance, empathy, and tangibles. The results showed that the patients’ level of satisfaction on the average was satisfactory, at 80.2%. Besides, satisfaction based on reliability was 82.5%, responsiveness was 85.5%, assurance was 85.8%, empathy was 76.3%, while the dimension of tangibles was 70.9%. In conclusion, patients were satisfied on an average, regarding the professional services provided by the staff of certified pharmacists in the region.

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INTRODUCTION

Customer service is an important estimation of service quality known for ages (Bryant, 2019; Henrique and Filho, 2020). In the healthcare industry, it is an indicator which measures the quality of service and the level of satisfaction a patient receives from a professional treatment (Teshnizi et al., 2018; Almarsdóttir et al., 2019; Schwartzberg et al., 2018). Patient satisfaction is essential for all healthcare organizations as it helps in improving service delivery and strategic goals. Similarly, in the pharmaceutical profession, it is one of the crucial topics. It has always been of significant concern in the field (Tabeeifar et al., 2020) because it affects not only the clinical outcomes, but also other aspects such as medical malpractice claims, patient retention, the timely, efficient, and patient-centred delivery of quality health care (Khan et al., 2020; Rosland et al., 2018; Pekkaya et al., 2019).
A pharmacy is a place where certified pharmacists perform their professional responsibilities (Verulava et al., 2018; Yao et al., 2020). It is also a place where the public could obtain complete information and guide regarding medical therapy (Sollecito and Johnson, 2012; Basu et al., 2018). The pharmaceutical practice is grouped under the healthcare professional since it has the potential of providing services to individual patients and improving the overall quality of life. Also, a pharmacist is a healthcare professional responsible for dispensing medication and ensuring patient safety through appropriate drug use (Larsson et al., 2018). According to a study, a licensed pharmacist is not only drug dispenser, but also a professional therapist who teaches patients the proper use of medications and answers any drug-related questions (Carey et al., 2019).

There is a constant need for pharmacists to improve their knowledge, skills and behaviours in terms of interacting with patients (Rodríguez and Živka Juričić, 2018; Spanakis et al., 2019). The term “pharmaceutical care” is described as a patient-centred, outcomes-oriented pharmacy practice which requires working in connection with patients and other healthcare providers to promote health and prevent diseases (King et al., 2019). It also involves assessing, monitoring, initiating (Melton and Lai, 2017), and modifying the use of medication to ensure that the drug therapy is safe and effective (Al-Harajin et al., 2019; Clignet et al., 2019). Based on these, an essential responsibility of any professional pharmacist is the commitment to individual patients. Ever since the clinical pharmacy services have evolved in Indonesia, the primary orientation has changed from drug-oriented to patient-oriented pharmaceutical care.

Customer satisfaction is a personal feeling of pleasure or disappointment, based on the perceived performance of a product or service against the expected outcome (Iglesias et al., 2019; Lim et al., 2020). However, patient satisfaction is a well-established indicator used in evaluating the quality of medical care and an essential tool for promoting improvements in clinical care (Yilmaz et al., 2019; Gonzalez, 2019). Service Quality (SERVQUAL) is a tool used for measuring a patient’s perception of the quality of service (Parasuraman et al., 1993). This tool has five dimensions, namely; reliability, responsiveness, assurance, empathy, and tangibles (Yuan and Gao, 2019; Demong et al., 2019). Reliability is the capability of employees to deliver services in a timely and accurate manner, while responsiveness is the willingness of the organization to provide prompt service and help customers (Ibrahim and Ahmed, 2019). The dimension of assurance has to do with the necessary knowledge, politeness and ability of employees to demonstrate confidence and trust. At the same time, empathy is the degree of care and individual attention provided to customers or patients (Konerdning et al., 2019). Finally, tangibles are the physical facilities, equipment and the personnel available (Mohammadi and Salehi, 2019).

This study primarily outlines the level of patient satisfaction regarding services provided by professional pharmacists in Kasihan subdistrict, Bantul Regency, Special Region of Yogyakarta, Indonesia, using the SERVQUAL questionnaire.

MATERIALS AND METHODS

The non-experimental descriptive design with a cross-sectional method was employed in this study. It was approved by the Research Ethics Committee (KEPK) of the Faculty of Medicine and Health Science of Universitas Muhammadiyah Yogyakarta (UMY), Indonesia. Also, it was conducted from November 2018 to May 2019 at Kasihan District of Bantul Regency, Yogyakarta Special Region, Indonesia. This study involved 308 participants, and the researchers employed a convenience sampling technique to select participants from the pharmacy waiting room. All the participants met the eligibility criteria and provided with the written informed consent, as shown in Table 1.

The study data were collected through patient satisfaction questionnaires in line with the research goals. The questionnaires were made up of five dimensions which are reliability, responsiveness, assurance, empathy, and tangibles. The questionnaires used a 4-Likert scale response ranging from; 1: strongly disagree; 2: disagree; 3: agree; 4: strongly agree (Brown, 2011) and was tested for validity and reliability.

RESULTS AND DISCUSSION

Study Participants

Three hundred eight consumers completed the questionnaires from 14 private pharmacies in Kasihan District of Bantul Regency, Yogyakarta Special Region, Indonesia. The respondents were of different genders, ages, occupations, and educational backgrounds. Based on Table 2, more than half of the participants (58%; n=180) were male, while 42% (n=128) were female. In terms of age distribution, 38% of the participants (n=118), were aged 17 – 25, 21% (n=65) were 26 – 35 years old, 16% (n=50) were aged 36 – 45, 20% (n=62) were 46 – 55 years old, while 4% (n=13) were aged 56 – 65. With
Table 1: Inclusion and exclusion criteria of the study

| Criteria     | Pharmacist                                                                 | Patient (Consumer) |
|--------------|----------------------------------------------------------------------------|--------------------|
| Inclusion    | • A licensed pharmacist.                                                   | • Aged 17 years or above. |
|              | • Willing to be respondent.                                               | • Visiting the pharmacy more than one time. |
| Exclusion    | • Having irregular working hours.                                          | • Unable to complete questionnaire. |

Table 2: A summary of study participant demographic information (n=308)

| Characteristics | Value (n) |
|-----------------|-----------|
| Gender          |           |
| Male            | 180       |
| Female          | 128       |
| Age             |           |
| 17 – 25         | 118       |
| 26 – 35         |           |
| 36 – 45         |           |
| 46 – 55         |           |
| 56 – 65         |           |
| Occupation      |           |
| Labor           | 65        |
| Entrepreneur    | 50        |
| Student         | 50        |
| Private Employees | 60    |
| Civil servants  | 50        |
| Unemployment    | 13        |
| Others          | 50        |
| Education       |           |
| Primary school  | 141       |
| Junior high     | 113       |
| High school     |           |
| College         |           |

respect to occupation, about one third 33% (n=101) were student, 16% (n=50) each were labor and entrepreneur, 18% (n=55) were private employees, 9% (n=28) were civil servants, 6% (n=18) were unemployed, while 2% (n=6) had none of the status. In terms of educational background, about half of the participants 46% (n=141) had high school certificate, 37% (n=113) finished college, 16% (n=50) were junior high school certificate holder, while 1% (n=4) finished primary school.

Validity and Reliability Tests
The validity test result presented in Table 3, shows that one customer satisfaction question, which is item (P7), had r value less than 0.316 (r<0.361). In general, questions with r-value greater than 0.361 means those items are valid (Drost, 2011). Hence, P7 was removed from the questionnaires, and there were 23 question items after validity test.

However, in the reliability test, a question item is considered reliable when its Cronbach’s alpha value is greater or equal to 0.600 (Drost, 2011). The reliability test result shown in Table 4 confirms that Cronbach’s Alpha value of the question items was 0.905, that is, greater than 0.600; hence, all the details were reliable.

Patient Satisfaction
The data on patient satisfaction shown in Table 5 composed of five dimensions, namely; reliability, responsiveness, assurance, empathy, and tangible. The table also presented the overall level of customer satisfaction from the 14 pharmacies.

Consumer Satisfaction Based on Reliability
Reliability describes the ability of service providers to provide services safely and efficiently (Hamari et al., 2017). Concerning this study, pharmacies staff
Table 3: The results of the validity test

| Item-Total Statistics | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----------------------|--------------------------------|----------------------------------|----------------------------------|
| P1                    | 316.437                        | .496                             | .742                             |
| P2                    | 314.516                        | .477                             | .740                             |
| P3                    | 310.764                        | .648                             | .737                             |
| P4                    | 309.224                        | .489                             | .736                             |
| P5                    | 311.523                        | .442                             | .738                             |
| P6                    | 306.938                        | .482                             | .735                             |
| P7*                   | 317.748                        | .331                             | .743                             |
| P8                    | 314.110                        | .523                             | .740                             |
| P9                    | 312.369                        | .552                             | .738                             |
| P10                   | 314.921                        | .481                             | .741                             |
| P11                   | 304.875                        | .733                             | .732                             |
| P12                   | 310.047                        | .535                             | .737                             |
| P13                   | 309.937                        | .691                             | .736                             |
| P14                   | 311.357                        | .522                             | .738                             |
| P15                   | 309.264                        | .544                             | .736                             |
| P16                   | 314.438                        | .447                             | .740                             |
| P17                   | 303.085                        | .647                             | .731                             |
| P18                   | 303.766                        | .677                             | .731                             |
| P19                   | 317.614                        | .372                             | .743                             |
| P20                   | 313.661                        | .599                             | .739                             |
| P21                   | 300.309                        | .707                             | .728                             |
| P22                   | 306.455                        | .615                             | .733                             |
| P23                   | 314.833                        | .500                             | .741                             |
| P24                   | 309.333                        | .507                             | .736                             |

*Question item having R-value less than 0.361

Table 4: The result of the reliability test

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .905             | 23         |

Table 5: Results of Customer Satisfaction Survey

| Dimension      | Strongly Satisfied(%) | Satisfied(%) | Dissatisfied(%) | Strongly Dissatisfied(%) |
|----------------|------------------------|--------------|-----------------|--------------------------|
| Reliability    | 5.3%                   | 82.9%        | 11%             | 0.7%                     |
| Responsiveness | 4.9%                   | 85.5%        | 9.3%            | 0.3%                     |
| Assurance      | 4%                     | 85.8%        | 9.6%            | 0.5%                     |
| Empathy        | 11.3%                  | 76.3%        | 12%             | 0.4%                     |
| Tangible       | 1.6%                   | 70.9%        | 26.9%           | 0.6%                     |
| Average        | 5.7%                   | 80.2%        | 13.5%           | 0.5%                     |
members can provide accurate services, in terms of information delivery, to the customers or patients from the very first time without any errors; thereby making the patients interested in visiting the same pharmacy in the future. The ability to provide accurate and precise information, such as dosage use, storages, side effects, protocols on drug waste, and activities to be avoided during drug use, is a vital factor in the dimension of reliability. Based on this study, 82.9% of participants were satisfied with the service received from the pharmacy staff. However, 11% were dissatisfied with the service, 5.3% were strongly satisfied, while 0.7% were strongly dissatisfied. Besides, based on the data on an item related to the protocols on drug waste, the patients still feel they have not received appropriate and accurate information from the staff.

**Consumer Satisfaction Based on Responsiveness**

The aspect of responsiveness describes the willingness to help patients or customers and provide prompt services (Hamari et al., 2017). The customers assess and see how the pharmacy provides professional services with responsiveness and care, especially during rush or peak hours. In this dimension, the staff should also be able to establish good relations with the consumers and solve any health-related problems. The staff assessment is based on the speed in solving customer’s health-related issues, such as demonstrating the proper use of medications or other medical devices and providing the patients with written information. Based on this study, 85.5% of the participants were satisfied with the service. However, 9.3% were dissatisfied, 4.9% were strongly satisfied, while 0.3% were strongly dissatisfied. Customers not satisfied bore down to the staff not being able to demonstrate the proper use of medication and other medical devices.

**Consumer Satisfaction Based on Assurance**

The dimension of assurance has to do with being knowledgeable and polite in creating a significant level of confidence in patients (Hamari et al., 2017). The patient or consumer’s satisfaction is assessed by the ability of the staff to provide guaranteed services. Consumers are usually satisfied or very satisfied when there is some level of trust and confidence in the services received from the pharmaceutical team. Based on the data obtained in this study, 85.8% of the participants were satisfied with the available services, 9.6% were dissatisfied, 4% were strongly satisfied, while 0.5% were strongly dissatisfied. The few customers not happy was as a result of errors in providing drug information, with the need for improvement.

**Consumer Satisfaction Based on Empathy**

Empathy has to do with giving honest and personal attention to understand the customer’s desires (Hamari et al., 2017). In the course of conducting this study, a sizable number of participants were still dissatisfied with the questionnaire items regarding wearing an ID card, as most staff members were found wanting in this area. Data obtained in this study confirmed that 76.3% of the participants were satisfied with the staff professional services, 12% were dissatisfied, 11.3% were strongly satisfied, while 0.4% were strongly unhappy.

**Consumer Satisfaction Based on Tangibles**

The dimension of tangibles is described as the physical appearance of the equipment, personnel, and communication materials (Hamari et al., 2017). Customers’ satisfaction is assessed from the available services, members of staff and medical equipment. Tangibles in this study are viewed from the availability of a particular room used for drug counselling, availability of brochures or leaflets, and the presence of staff who help consumers with difficulty in understanding drug-related information. Based on the data obtained, 70.9% of participants were satisfied with the services provided by the team. However, 26.9% were dissatisfied, 1.6% were strongly satisfied, while 0.6% were strongly unhappy. Those not satisfied was as a result of many pharmacies not having unique rooms for drug counselling. The counselling was conducted in front of the store designated for drug delivery and receipt of prescriptions.

In general, the level of patient satisfaction with the pharmaceutical services received in Kasihan sub-district Bantul, Special Region of Yogyakarta, Indonesia, was categorized as satisfying. Among the 308 participants, 80.2% were satisfied, 13.5% were dissatisfied, 5.7% were delighted, while only 0.5% were dissatisfied. These results could be further used as a reference on which pharmacies and members of staff could improve the quality of professional services provided, thereby improving the patients’ satisfaction levels.

**CONCLUSIONS**

The average percentage of patients’ level of satisfaction regarding the pharmaceutical services provided by pharmacies in the Kasihan subdistrict, Bantul Regency, Special Region of Yogyakarta, Indonesia was 80.2%. The study also revealed that the satisfaction levels in the dimension of reliability were 82.5%, responsiveness was 85.5%, assurance was
85.8%, empathy was 76.3%, while the tangibles dimension was 70.9%.

Limitation of the Study
This research needs to be evaluated in the context of study limitations. The interviews in terms of the pharmaceutical services could not be conducted in-depth. Also, analysis of patient satisfaction was general, and not specific for patients or consumers who receive self-medication or drugs prescription.

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Conflict of Interest
All authors reported no conflict of interest.

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