# A SCIENTIFIC PAPER TITLED: THE ROLE OF PHARMACEUTICAL CARE SERVICES IN IMPROVING THE QUALITY OF HEALTHCARE SERVICES IN THE SAUDI HEALTHCARE SECTOR.

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**Abstract**

Pharmacists offer a specific service called drug information service, which aims to improve drug knowledge, encourage rational prescription, and lower medication mistakes. This service is offered in response to the questions posed by allied health professionals on medication-related concerns involving patient care and pharmacotherapy. Assessing patients' contentment with pharmacy services is crucial in guaranteeing the standard of care. It assists in pinpointing areas that need to be improved in order to offer top-notch pharmacy services and guarantee the delivery of improved pharmaceutical care. Aim: The purpose of the current study is to determine how pharmaceutical care services contribute to the improvement of healthcare services and how satisfied patients are with pharmacy services when they visit outpatient pharmacies in the Kingdom of Saudi Arabia. Methods: Descriptive analytic cross sectional study design to determine how pharmaceutical care services contribute to the improvement of healthcare services. This design is a systematic and structured technique to collecting data from a sample of persons or entities within a broader population, with the primary purpose of producing a thorough and accurate description of the features, behaviors, views, or attitudes that exist within the target group. Conclusion: The findings from this study underscore the importance of community pharmacies as integral components of the healthcare system, serving diverse functions from medication dispensing to public health promotion.

**Key words:** pharmaceutical, care, quality, healthcare, service.

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## Introduction

Affected by the COVID-19 pandemic's health problem is Hospital Pharmacy Service (HPS). In order to improve treatment results and lower the risk of contagion, HPSs have been compelled by the epidemic to modify their outpatient consultation services to include tele pharmacy. For all humans, health is a vital component of existence. "State of complete physical, mental, and social well-being and not merely absence of any disease or infirmity" is how the World Health Organization defines "health." Patients frequently deal with a variety of issues, such as illnesses that need for several prescriptions. A pharmacist is a licensed and skilled practitioner who may distribute medicinal medications. In order to provide patients with the most up-to-date medical treatment and practices, practicing pharmacists must keep up with the expanding brand growth of various products and associated information due to the growing pharma business (Gillani et al., 2017).

Pharmacists offer a specific service called drug information service, which aims to improve drug knowledge, encourage rational prescription, and lower medication mistakes. This service is offered in response to the questions posed by allied health professionals on medication-related concerns involving patient care and pharmacotherapy. Being objective in the information provided on drugs is among its most crucial features. As a result, impartial information is crucial for improving patient outcomes and lowering adverse drug reactions (ADRs). (Alamri et al., 2017).

Community pharmacy owners and operators may make a substantial contribution to national initiatives aimed at enhancing patient care and quality of life. A pharmacist may make a significant contribution by taking the effort to offer the highest quality pharmaceutical treatment. Nonetheless, the UAE's health care system is well-organized and standardized, and pharmacists' roles in community pharmacies are well defined. Patient satisfaction with all medical concerns is a major priority for UAE health officials. However, in the area of patient-centered pharmaceutical care, the pharmacist is not granted complete autonomy to carry out his or her duties, and government initiatives are primarily focused on patient satisfaction from the standpoint of the physician (El-Sharif et al., 2017).

## Significance of the study

Assessing patients' contentment with pharmacy services is crucial in guaranteeing the standard of care. It assists in pinpointing areas that need to be improved in order to offer top-notch pharmacy services and guarantee the delivery of improved pharmaceutical care. The purpose of the current study is to determine how pharmaceutical care services contribute to the improvement of healthcare services and how satisfied patients are with pharmacy services when they visit outpatient pharmacies in the Kingdom of Saudi Arabia (Alotaibi et al., 2021).

## Aim of the study:

This study aims to determine how pharmaceutical care services contribute to the improvement of healthcare services and how satisfied patients are with pharmacy services when they visit outpatient pharmacies in the Kingdom of Saudi Arabia in Al-Iman General, King Salman, and Al-Yamamah Hospitals.

## Objectives:

1) Determine how pharmaceutical care services contribute to the improvement of healthcare services.
2) How satisfied patients are with pharmacy services when they visit outpatient pharmacies in the Kingdom of Saudi Arabia in Al-Iman General, King Salman, and Al-Yamamah Hospitals.

## Research Questions:

The current study will answer the following question:

1. How do pharmaceutical care services contribute to the improvement of healthcare services?
2. How are satisfied patients with pharmacy services when they visit outpatient pharmacies in the Kingdom of Saudi Arabia?

## Literature review

The goal of pharmaceutical care (PC) and good pharmacy practices (GPP) is to provide patients with the best possible treatment and an enhanced quality of life. The GPP and PC quality standards are very important in the healthcare system since the quality evaluation is correlated with the patients' happiness. Three criteria are used to evaluate the quality of pharmaceutical services: result, method, and structure. Assets and settings make up the framework, actions make up the process, and results include how the care affects the patient's health (Surur et al., 2015).

Patients' satisfaction with pharmaceutical services is a reflection of both the facts of their care and their choices and expectations. Determining the level of discontent with pharmaceutical services is

crucial. The satisfaction survey will support the good developments in the present pharmaceutical services as well as assist pinpoint the precise areas of the service that most urgently require improvement. As a result, information will be available to optimize services and guarantee clients' health results by attending to their requirements and concerns (Dubina et al., 2009).

One of the management strategies used in both public and commercial organizations to continuously enhance the quality of services is the evaluation of health care. It is a social and ethical obligation in addition to a deliberate, technical, and political procedure. The issue of the professional-patient relationship's quality turns becomes both a means and an aim in and of itself. Research revealed that contented individuals typically follow treatment recommendations, give vital information to healthcare providers, and keep utilizing services. It is also said that patients with higher levels of satisfaction also tend to have higher quality of life. In this regard, achieving patient satisfaction is viewed as a goal of health care services, and as such, research on this topic should be conducted in order to include changes in the health care system (Soeiro et al., 2017).

"The care that a given patient requires and receives which assures safe and rational drug usage" was the definition of pharmaceutical care (PC) when it was first established in 1975. In 1980, a revised definition of PC said that it involved "determining a given individual's drug needs and providing not only the necessary drugs but also the necessary services to assure optimally safe and effective therapy." Patient outcomes have received more attention since then. The "responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life" is a widely accepted definition of PC that was published in 1990. "Maintenance of quality of life" was added to this term when it was further clarified. In general, pharmaceutical care is the provision of patient health care connected to medications through collaboration between patients, pharmacists, and other medical professionals (such as doctors, nurses), among others. Due to their background in medicine and experience with pharmacological therapy, pharmacists are among the most qualified individuals to provide PC (Mohammed et al., 2016).

It is the duty of pharmacists to work with other medical professionals to raise the standard of patient care. With the transition of the healthcare system from volume-based to value-based care and from episodic care to population health management, pharmacists have become increasingly important in the treatment and prevention of chronic illnesses and the consequences that go along with them (Alotaibi et al., 2021).

## Methods

### Research design:

Descriptive analytic cross sectional study design to determine how pharmaceutical care services contribute to the improvement of healthcare services.

This design is a systematic and structured technique to collecting data from a sample of persons or entities within a broader population, with the primary purpose of producing a thorough and accurate description of the features, behaviors, views, or attitudes that exist within the target group.

### Research Setting:

The study will be conducted in Saudi Arabia in Al-Iman General, King Salman, and Al-Yamamah Hospitals.

### Subject:

Purposive sample of 371 of people who visit pharmacist, The sample will be selected according to certain inclusion criteria.

### Sample size:

Study sample was selected via the systematic random sampling method.

The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. In practice, the sample size used in a study is determined based on the expense of data collection and the need to have sufficient statistical power.

### Sample size calculation:

$$n = \frac{Z^2 p(1-p)}{d^2}$$

Confidence level (95%), Population size (10000), Expected proportion (0.5), Margin of error (5), so sample size = 371.

### Inclusion Criteria:

The inclusion criteria were set as follows:

(1) people who visit pharmacist.

(2) female and male.

(3) from Saudi Arabia.

(4) in Al-Iman General, King Salman, and Al-Yamamah Hospitals.

**Sampling Technique:**
Participants submitted data through a survey and direct interviewing. Data will be collected by questionnaire.

**Validity:**
The revision of the tools will be ascertained by a panel of experts to measure the content validity of the tools and the necessary modification will be done accordingly. Face validity will be by expertise**.** The modification will be done.

**Reliability:**
The reliability will be tested statistically for the adapted and modified tools by using Cronbach's coefficient alpha statistical test.

**Pilot study**
A pilot study will be carried out on 10% of sample who will be excluded from the study subjects to test feasibility and clarity of the tools, and the necessary modifications will be done accordingly. If there is no modification pilot study subject will be included.

**Administrative design:**
An official permission will be obtained from the directors. The official permission will include the aim of the study, the tools of data collection and the characteristics of the study.

**Ethical considerations**
Data was provided by participants via surveys and in-person interviews. Participants were advised that participation in the study would be optional and that their privacy would be maintained. Data will be gathered by a self-reported questionnaire. The ethics committee will provide approval for this project. Before the questionnaire was administered, each participant provided written informed permission.

A. Demographics:
**what is your age?**

**Age**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 27 | 18.9 | 18.9 | 18.9 |
| | 2 | 26 | 18.2 | 18.2 | 37.1 |
| | 3 | 17 | 11.9 | 11.9 | 49.0 |
| | 4 | 26 | 18.2 | 18.2 | 67.1 |
| | 5 | 28 | 19.6 | 19.6 | 86.7 |
| | 6 | 19 | 13.3 | 13.3 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

This table shows that the sample includes a range of ages from 20 to over 65.
The 55-64 age group has the highest frequency and percentage (28 individuals, 19.6%).
The 35-44 age group has the lowest frequency and percentage (17 individuals, 11.9%).
The distribution is fairly even across the age groups, with a slight increase in the younger and older age ranges.

**What is your gender?**

**Gender**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 74 | 51.7 | 51.7 | 51.7 |
| | 2 | 69 | 48.3 | 48.3 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The gender distribution is nearly even, with females representing a slightly higher percentage than males (51.7% female, 48.3% male).
This suggests that the sample is fairly balanced in terms of gender.

**What is you educational level?**

**EduLevel**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 32 | 22.4 | 22.4 | 22.4 |
| | 2 | 40 | 28.0 | 28.0 | 50.3 |
| | 3 | 31 | 21.7 | 21.7 | 72.0 |
| | 4 | 40 | 28.0 | 28.0 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The sample is spread across different educational levels, from illiterate to graduate degree holders.
High school graduates and individuals with graduate degrees are the most represented groups (each with 28%, 40 individuals).

Illiteracy is the least represented educational level but still includes a notable percentage (22.4%, 32 individuals).

**What is your professional background?**

**ProfBg**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 73 | 51.0 | 51.0 | 51.0 |
| | 2 | 70 | 49.0 | 49.0 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The professional background is nearly split evenly between medical/health and non-medical/health sectors.

There is a very slight majority in the medical/health sector (51.0%, 73 individuals).
This even distribution is useful for studies comparing these two professional domains

B. Evaluation of the community pharmacy service:

**1. Why did you visit the pharmacy?**

| | | |
|---|---|---|
| Reason_for_Visit_Prescription | 113 | 30% |
| Reason_for_Visit_Consultation | 109 | 29% |
| Reason_for_Visit_Purchase_Non-Medication | 97 | 26% |
| Reason_for_Visit_Cosmetics | 115 | 31% |
| Reason_for_Visit_Baby_Products | 93 | 25% |
| Reason_for_Visit_Supplements | 93 | 25% |
| Reason_for_Visit_Womens_Products | 107 | 29% |
| Reason_for_Visit_Others | 98 | 26% |

Reason for Visit Table:
Cosmetics is the most common reason for visiting, accounting for 31% of visits.
The least common reason is the purchase of baby products and supplements, both at 25%.

The reasons for visits are quite varied, with prescription, consultation, and women's products also being significant reasons for visits.

**2. If your answer in question 5 "To collect a prescription:"**

**RxCollect**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 45 | 31.5 | 31.5 | 31.5 |
| | 2 | 46 | 32.2 | 32.2 | 63.6 |
| | 3 | 52 | 36.4 | 36.4 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The majority of the visitors (36.4%) came back later to collect prescriptions.
A slightly smaller portion waited in the pharmacy (32.2%), and the remaining 31.5% collected their prescriptions straight away.

This may suggest efficient service or good planning on part of the visitors.

**3. The pharmacists' help to get other items was satisfactory.**

**PharmHelp**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 74 | 51.7 | 51.7 | 51.7 |
| | 1 | 69 | 48.3 | 48.3 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

Just over half of the visitors (51.7%) did not require help from the pharmacists.
A close 48.3% did require assistance.

This could indicate a fairly self-sufficient customer base or the clarity of information available.

**4. The nationality of the pharmacist:**

**PharmNat**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 45 | 31.5 | 31.5 | 31.5 |
| | 2 | 52 | 36.4 | 36.4 | 67.8 |
| | 3 | 46 | 32.2 | 32.2 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The largest group of pharmacists identified as Indian (36.4%).
Arab pharmacists made up 31.5% and the remaining 32.2% were from other nationalities.

This diversity may reflect the local community or the employment practices of the pharmacies.

**5. Facing language barrier with the pharmacist:**

**LangBar**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 67 | 46.9 | 46.9 | 46.9 |
| | 1 | 76 | 53.1 | 53.1 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

A slight majority (53.1%) reported a language barrier.
The remaining 46.9% did not experience any language barrier.
Language barriers can impact customer service and satisfaction.

**6. How can you describe the last pharmacy you visited?**

**PharmPref**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 48 | 33.6 | 33.6 | 33.6 |
| | 2 | 42 | 29.4 | 29.4 | 62.9 |
| | 3 | 53 | 37.1 | 37.1 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The largest group (37.1%) visited the pharmacy out of convenience just once.
- 33.6% visited their preferred pharmacy, and 29.4% considered the pharmacy as one of several they frequent.
- This shows varying levels of loyalty and habits among the pharmacy customers.

**7. The amount of time the pharmacist spends with you:**

**TimePharm**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 65 | 45.5 | 45.5 | 45.5 |
| | 1 | 78 | 54.5 | 54.5 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

- The most common time spent in the pharmacy was 15 minutes (26.6%).
- Less than 5 minutes was the least common duration (17.5%).
- This information can be used to infer customer service speed and efficiency.

**8. On average time spent with the pharmacist:**

**AvgTime**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 25 | 17.5 | 17.5 | 17.5 |
| | 2 | 26 | 18.2 | 18.2 | 35.7 |
| | 3 | 23 | 16.1 | 16.1 | 51.7 |
| | 4 | 38 | 26.6 | 26.6 | 78.3 |
| | 5 | 31 | 21.7 | 21.7 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The pharmacists are rated highest for being helpful (104 mentions), suggesting that customers find their assistance valuable.
- They are also frequently rated as experienced (98 mentions), which may contribute to customers' trust in their service.
- Trustworthiness (92 mentions) and confidence (85 mentions) have lower but still strong showings, indicating overall positive perceptions but with some room for improvement.

**9. How do you rate your usual pharmacist?**

| | |
|---|---|
| **Pharmacist_Rating_Experienced** | 98 |
| **Pharmacist_Rating_Trustworthy** | 92 |
| **Pharmacist_Rating_Confident** | 85 |
| **Pharmacist_Rating_Helpful** | 104 |

**The role of the pharmacist in patient education:**

**1. Advised for smoking cessation.**

**AdvSmokCess**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 68 | 47.6 | 47.6 | 47.6 |
| | 1 | 75 | 52.4 | 52.4 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

- A slight majority of the participants (52.4%) received advice on smoking cessation, showing a proactive stance in addressing smoking habits.

- The almost even split suggests that there's a balanced need for such advice among the pharmacy customers.

**2. Advised for health eating.**

**AdvHealthEat**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 81 | 56.6 | 56.6 | 56.6 |
| | 1 | 62 | 43.4 | 43.4 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

More participants did not receive advice on healthy eating (56.6%) than did (43.4%).

- This might reflect either a lack of demand for nutritional advice or a missed opportunity for pharmacists to provide such guidance.

**3. Advised for physical exercise:**

**AdvPhysEx**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 66 | 46.2 | 46.2 | 46.2 |
| | 1 | 77 | 53.8 | 53.8 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

Participants receiving advice on physical exercise slightly outnumber those who did not (53.8% vs. 46.2%).

- This indicates that pharmacists are somewhat engaged in encouraging a physically active lifestyle.

**4. Advised for anabolic setroids**

**AdvAnabSter**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 67 | 46.9 | 46.9 | 46.9 |
| | 1 | 76 | 53.1 | 53.1 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

Slightly more participants reported receiving advice against using anabolic steroids (53.1%) compared to those who did not (46.9%).

- This suggests awareness and education on the risks associated with anabolic steroids among pharmacy visitors.

**5. Advised for hypertension:**

**AdvHypert**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 72 | 50.3 | 50.3 | 50.3 |
| | 1 | 71 | 49.7 | 49.7 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

- Advice on hypertension is evenly split among participants, with a near 50/50 distribution (50.3% did not receive advice, 49.7% did).

- This could reflect the pharmacists' responsiveness to the prevalence of hypertension or customer queries about the condition.

**6. Advised for diabetes**

**AdvDiab**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 61 | 42.7 | 42.7 | 42.7 |
| | 1 | 82 | 57.3 | 57.3 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

- More participants received advice on diabetes (57.3%) than did not (42.7%).

- This might indicate a higher prevalence of diabetes concerns or inquiries in the pharmacy's customer base.

**7. Advised for oral contraceptives**

**AdvOralCon**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 66 | 46.2 | 46.2 | 46.2 |
| | 1 | 77 | 53.8 | 53.8 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

Advice on oral contraceptives was given to a majority of participants (53.8%), which could show the pharmacists' role in reproductive health education.

**8. Advised for antibiotics use**

**AdvAntibio**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 55 | 38.5 | 38.5 | 38.5 |
| | 1 | 88 | 61.5 | 61.5 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

- A significant majority of participants (61.5%) received advice on antibiotics.

- This may suggest a focus on antibiotic stewardship and education about their appropriate use.

**Patients' satisfaction with the services provided by the community pharmacist**

1. The pharmacist delivers your medicines in a polite way:

**SatMedDel**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 55 | 38.5 | 38.5 | 38.5 |
| | 2 | 45 | 31.5 | 31.5 | 69.9 |
| | 3 | 43 | 30.1 | 30.1 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

The highest number of respondents (38.5%) agree that they are satisfied with the medicine delivery, while 30.1% disagree, indicating a potential area for improvement.

2. The instructions were clearly labeled by the pharmacist on each medication

**SatInstrLabel**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 51 | 35.7 | 35.7 | 35.7 |
| | 2 | 48 | 33.6 | 33.6 | 69.2 |
| | 3 | 44 | 30.8 | 30.8 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

- Satisfaction levels with instruction labels are relatively even across agree (35.7%), neutral (33.6%), and disagree (30.8%), suggesting that while some are satisfied, there is a notable proportion of customers who may require clearer information.

3. The pharmacist clearly explains to you all possible side effects

**SatSideEff**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 38 | 26.6 | 26.6 | 26.6 |
| | 2 | 49 | 34.3 | 34.3 | 60.8 |
| | 3 | 56 | 39.2 | 39.2 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

A plurality of respondents (39.2%) disagree with being satisfied regarding side effects explanation, which could indicate a need for pharmacists to provide more comprehensive counseling on this aspect.

4. The pharmacist uses information about your previous condition/drugs when assessing your drug therapy

**SatPatHist**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 40 | 28.0 | 28.0 | 28.0 |
| | 2 | 53 | 37.1 | 37.1 | 65.0 |
| | 3 | 50 | 35.0 | 35.0 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

A slightly larger number of respondents feel neutral (37.1%) about satisfaction with how their patient history is handled, with agree and disagree being closely matched. This suggests a diverse experience regarding personal history management.

5. The pharmacist provides you with information about the proper method of storage of your medication

**SatWritInfo**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 47 | 32.9 | 32.9 | 32.9 |
| | 2 | 48 | 33.6 | 33.6 | 66.4 |
| | 3 | 48 | 33.6 | 33.6 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

Opinions on satisfaction with written information provided by the pharmacy are evenly split across all options, which implies that customers' perceptions vary widely on the quality of the information they receive.

6. The place of pharmaceutical counseling respects your privacy

**SatPrivacy**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 46 | 32.2 | 32.2 | 32.2 |
| | 2 | 49 | 34.3 | 34.3 | 66.4 |
| | 3 | 48 | 33.6 | 33.6 | 100.0 |
| | Total | 143 | 100.0 | 100.0 | |

Satisfaction with privacy is evenly distributed among respondents, with a slight leaning towards neutral and disagree. This indicates that privacy is a concern for a significant number of customers and could be addressed more effectively.

**Discussion**

This study presents a comprehensive overview of the demographics, reasons for visiting pharmacies, evaluation of community pharmacy services, and the role of pharmacists in patient education, along with patient satisfaction with these services. Our findings offer valuable insights into the pharmacy service landscape and highlight several key areas for improvement and further investigation.

Our demographic analysis revealed a diverse sample, with a notable representation across various age groups, gender distributions, educational levels, and professional backgrounds. The predominance of individuals aged 55-64 and the balanced gender distribution suggest that our sample adequately reflects a broad spectrum of the community, potentially enhancing the generalizability of our findings. The diversity in educational levels and professional backgrounds further enriches our understanding of the community pharmacy's clientele, indicating that these services cater to a wide range of societal segments.

The reasons for visiting pharmacies were varied, with cosmetics emerging as the most common reason, followed by other needs such as baby products, supplements, and prescription medications. This variety underscores the multifaceted role of community pharmacies beyond merely dispensing medications. The efficiency of prescription services, as indicated by the modes of prescription collection, highlights a potential area of strength in pharmacy operations. Moreover, the assistance provided by pharmacists, the diversity in their nationalities, and the language barriers encountered by customers point to the importance of cultural competence and communication skills in enhancing service delivery.

Our results demonstrate a proactive role of pharmacists in patient education, with significant advice provided on smoking cessation, healthy eating, physical exercise, and the use of anabolic steroids, among others. This advisory role is crucial in promoting public health and preventing disease. However, the variation in the provision of advice across different health topics suggests room for standardizing and possibly enhancing these educational efforts.

Patient satisfaction with the services provided by community pharmacists varied across several dimensions, including the politeness of medicine delivery, clarity of medication instructions, explanation of side effects, consideration of patient history in drug therapy assessment, information on medication storage, and privacy during pharmaceutical counseling. While there were areas of satisfaction, notable portions of the respondents expressed neutral or dissatisfied views on these aspects, signaling opportunities for improvement in pharmacist-patient communication, personalized care, and privacy protection.

## Conclusion

The findings from this study underscore the importance of community pharmacies as integral components of the healthcare system, serving diverse functions from medication dispensing to public health promotion. The insights into patient satisfaction and the role of pharmacists in patient education highlight the potential for pharmacies to further contribute to health promotion and disease prevention.

## Recommendations

Future research should explore strategies to enhance pharmacist training in patient communication and education, address language barriers, and ensure privacy and personalized care in pharmacy services.

## Limitations

Moreover, considering the evolving landscape of pharmacy practice, further studies could investigate the impact of digital health technologies on pharmacy services and patient education, aiming to enhance the accessibility, efficiency, and quality of care provided to the community.

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