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PATIENT DEMAND FOR PHARMACEUTICAL CARE SERVICES AT THE FAMILY MEDICINE CLINIC, PHAM NGOC THACH UNIVERSITY OF MEDICINE: A CROSS-SECTIONAL STUDY IN 2023

Nguyen Duc Quynh Chau, Nguyen Huynh Thao Vy,
Khuu Thuan Thuy, Dang Thi Thuy Linh, Le Thi Quy Thao*

Pham Ngoc Thach University of Medicine -
Duong Quang Trung, Ward 12, Dist 10, Ho Chi Minh City, Vietnam

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ABSTRACT

Introduction: Understanding patient demand for pharmaceutical care services is crucial for optimizing healthcare delivery, prompting a survey at the Family Medicine Clinic (FM).

Aim: Survey the demand for pharmaceutical care services at the FM, Pham Ngoc Thach University of Medicine in 2023.

Method: Descriptive cross-sectional study. A convenience sample method was conducted from August 2022 to May 2023, involving 424 patients who underwent medical examinations at the FM, Pham Ngoc Thach University of Medicine.

Results: Most patients required the use of pharmaceutical care services at the Clinic again, accounting for 86.8%. The level of demand expression is high in 3 groups of needs, specifically, the need to check the suitability of prescriptions, the need for drug information, and the need for counselling, accounting for the positive responses accounting for the positive responses with the average rate of 78.8%; 87.5% and 82.5%, correspondingly. There was a significant difference in the Clinic's need for pharmaceutical care services among patients of different age groups (p = 0.043).

Discussion: A significant difference was observed in the need for pharmaceutical care services among patients of different age groups, highlighting the importance of tailored approaches to meet the diverse needs of the patient population effectively. At the same time, the patient's satisfaction and demand for pharmaceutical care services account for a large proportion.

Keywords: Family medicine, Pharmaceutical care, Primary health care.

1. INTRODUCTION

Over the past decades, drug treatment has become increasingly complex, emphasizing the need for close collaboration between pharmacists and doctors in patient care.1 At the same time, the primary role of the pharmacist has shifted from focusing mainly on compounding and dispensing medications to adopting a patient-centered approach, thereby improving patient care in various aspects, such as medication management, counseling, drug use, and participating in public health education activities, among others. This shift aims to enhance the responsibility of healthcare professionals and facilitate optimal medication use for patients.2 However, the transformation of pharmacy practice and its benefits are still not fully understood by patients and caregivers, even within current healthcare systems.3

FM is a specialty that provides comprehensive healthcare services for patients of all ages and backgrounds, and it is considered one of the oldest medical specialties. FM has become a key primary care model and has expanded globally, but it remains relatively new in many regions.4 FM

*Corresponding author
Email: thaoltq@pnt.edu.vn **Phone**: (+84) 918263596 **Http**s://doi.org/10.52163/yhc.v66ienglish.2785

research not only contributes to improving the quality of healthcare systems and making significant contributions to various primary care fields, but also ensures equal access to healthcare services for all individuals.5 Research on FM and pharmaceutical care continues to face numerous challenges in developing countries. In Vietnam, FM practice is still a relatively new model and has yet to gain widespread recognition from the public. In recent years, medical universities in Ho Chi Minh City and Hanoi have completed several family physician training programs to provide healthcare resources based on FM principles. Currently, the primary healthcare model based on FM principles has been implemented in several health stations in Ho Chi Minh City and other provinces. To date, according to the researchers' knowledge in Vietnam, there have been a few studies on FM and pharmaceutical care needs; however, the number still needs to be improved.6-11 Therefore, this study was conducted to develop further and clarify the urgent need for collaboration among family physicians, healthcare professionals, and pharmacists, as well as to address the pharmaceutical care needs of patients. This will serve as a basis for the Family Medicine Clinic to plan the development of future services and create a database for further studies, ensuring that patients can access comprehensive medical care. Additionally, it will enable doctors, nurses, pharmacists, and other healthcare professionals to utilize their expertise fully, work within their designated functions, reduce costs, and achieve the best possible patient outcomes.

2. MATERIALS AND METHODS

2.1. Study design

Cross-sectional study using a convenient sampling method. It was conducted in FM, Pham Ngoc Thach University of Medicine from August 2022 to May 2023.

2.2. Study participants and sample size

The study employed a convenience sampling method to recruit participants. The sample size was calculated using the following formula:

$$n = \frac{N}{1 + N \times (e)^2} = \frac{1300}{1 + 1300 \times (0{,}05)^2} = 306$$

Where n was the required sample size, N was the total number of patients at the clinic in one month, with N = 1300 patients, and e was the margin of error at a 95% confidence level (e = 0.05). Finally, considering a 10% exclusion rate of invalid responses, the minimum sample size required for this study was 337 participants.

After obtaining written consent, the survey was conducted from March 2023 to April 2023 at the FM, Pham Ngoc Thach University of Medicine, using a self-administered questionnaire with a sample size of 424 participants. Each day, at the clinic, the researcher introduced themselves, informed patients about the confidentiality of the study, obtained their consent, and explained the study's purpose and procedure. The research team then distributed the questionnaire and conducted 1:1 interviews with each participant, reading each question aloud to assist with comprehension and addressing any concerns to improve response rates. Surveys were undertaken typically while patients waited for payment, lab results, or medications, taking approximately 10-15 minutes per survey.

2.3. Data management & Statistical analyses

Survey data was retrieved using Microsoft Excel 365 2010 software before being exported to IBM SPSS Statistics version 20.0 for statistical analysis. Descriptive statistical analysis was used to calculate the frequency and percentage for each variable. After collecting official data, the reliability and internal consistency of the patient survey questionnaire were confirmed with a high Cronbach's Alpha value of α = 0.924.12-14

Descriptive statistics were used to present the frequency and percentage (%) for categorical variables, while continuous variables were expressed as mean, standard deviation, and PPR. PPR represents the total percentage of responses ranging from "Agree" to "Completely Agree" on the Likert-5 scale. Additionally, binary logistic regression and chi-squared tests were applied to examine the correlation between independent variables (basic participant information) and the dependent variable (patient demand for pharmaceutical care services at the clinic). The p-value less than 0.05 was considered statistically significant with a 95% confidence interval.

2.4. Ethical considerations

The survey was approved by the Ethical Committee of Pham Ngoc Thach University of Medicine, Vietnam (document number 847/TĐHYKPNT-HĐĐĐ, dated March 1, 2023).

3. RESULT

After the survey period, 425 patients participated in completing the questionnaire, with 1 sample being excluded due to not meeting the selection criteria. Therefore, 424 patients who met the selection criteria were included in the analysis. Regarding gender, there were 174 male patients and 250 female patients, accounting for 41% and 59%, respectively.

According to the recorded statistics, most patients participating in the study resided in Ho Chi Minh City (n = 353; 83.3%), while 71 patients from other provinces came to the city for medical treatment, accounting for 16.7%. In terms of age groups, the research results showed that the average age of the patients was 38.34 ± 12.81, with the most common group being patients aged 18-29 years (n = 125; 29.5%) and the least common group being patients aged ≥ 60 years (n = 23; 5.4%). Additionally, 119 patients were aged 30-39, accounting for 28.1%, 93 patients were aged 40-49, accounting for 21.9%, and the group aged 50-59 accounted for 15.1% (n = 64). In terms of educational level, approximately ¾ of the patients (n = 302; 71.2%) had a university-level education (Including no formal education, elementary, middle school, high school, college, and university), and 122 patients had the highest level of postgraduate education, accounting for 28.8%. Among the 424 survey participants, 376 patients (88.7%) were working outside the healthcare sector, and the majority had health insurance (n = 398; 93.9%). Overall, more than one-third of the patients (39.6%) trusted the services at the clinic and had revisited multiple times. Additionally, 101 patients (23.8%) had chronic diseases, and 153 patients (36.1%) were taking medication daily. Survey results showed that among the 153 patients taking daily medicines, 71 (16.7%) patients were taking 1-2 types of medication, 61 (14.4%) patients were taking 3-5 types, only 17 patients were taking 6-9 types (4%), and the lowest was four patients taking 10 or more types, accounting for 0.9%. Regarding the time of hospital visits/admissions, more than half of the participants (n = 250; 59%) reported that they had not visited or been admitted to a hospital recently, while the lowest percentage, 5% (n = 21), had been admitted/visited a hospital less than one week ago. Following this, patients who visited or were admitted to the hospital for ≥ 1 week and < 1 month, ≥ 1 month and < 3 months, and ≥ 3 months accounted for 7.1% (n = 30), 11.3% (n = 48), and 17.7% (n = 75), respectively.

Table 1. The patients' demand for checking the appropriateness of prescriptions

	n (%)					Mean ± SD	PPR (%)
	SD	D	N	A	SA		
Compare the current prescription with the previous one	3 (0.7%)	23 (5.4%)	64 (15.1%)	216 (51.0%)	118 (27.8%)	4.00 ± 0.84	78.8
Evaluate whether the medication prescribed is appropriate for the diagnosis	2 (0.5%)	24 (5.7%)	68 (16.0%)	206 (48.6%)	124 (29.2%)	4.00 ± 0.85	77.8
Review the quantity of medication prescribed	2 (0.5%)	15 (3.5%)	68 (16.0%)	204 (48.2%)	135 (31.8%)	4.07 ± 0.81	80.0

PPR average = 78.9; SD: Strongly disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly agree

In this study, 78.9% of participants expressed a positive demand for checking the appropriateness of prescriptions. Over 75% agreed on the importance of pharmacists comparing current and previous prescriptions, evaluating the suitability of prescribed medications for the diagnosis, and reviewing medication quantities (Table 1).

Table 2. The patients' need for medication information

	n (%)					Mean ± SD	PPR (%)
	SD	D	N	A	SA		
Check for duplication of medications in the prescription	2 (0.5%)	16 (3.8%)	40 (9.4%)	206 (48.6%)	160 (37.7%)	4.19 ± 0.79	86.3
Check for potential drug-drug or drug-food interactions	2 (0.5%)	15 (3.5%)	34 (8.0%)	198 (46.7%)	175 (41.3%)	4.25 ± 0.79	88.0
Provide full information on medication use before they leave the counter	1 (0.2%)	11 (2.6%)	29 (6.8%)	197 (46.5%)	186 (43.9%)	4.31 ± 0.73	90.4
Evaluate and counsel on any changes in the prescribed medications	1 (0.2%)	12 (2.8%)	49 (11.6%)	185 (43.6%)	177 (41.8%)	4.24 ± 0.78	85.4

PPR average = 87.5; SD: Strongly disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly agree

Overall, all study participants showed a high average rate of positive responses to questions related to medication information (87.5%). Up to 90.4% of participants confirmed that they need the pharmacist to "Provide full information on medication use before they leave the counter". More than 85% of patients agreed that the pharmacist should "Check for duplication of medications in the prescription", "Check for potential drug-drug or drug-food interactions", and "Evaluate and counsel on any changes in the prescribed medications" (Table 2).

Table 3. The patients' need for counseling in pharmaceutical care activities

	n (%)					Mean ± SD	PPR (%)
	SD	D	N	A	SA		
Providing information on pharmaceutical services	3 (0.7%)	41 (9.7%)	78 (18.4%)	186 (43.9%)	116 (27.3%)	3.88 ± 0.95	71.2
Counseling on how to use medications	1 (0.2%)	5 (1.2%)	26 (6.1%)	215 (50.7%)	177 (41.8%)	4.33 ± 0.67	92.5
Counseling on how to store medications	1 (0.2%)	7 (1.7%)	53 (12.5%)	201 (47.4%)	162 (38.2%)	4.22 ± 0.74	85.6
Counseling on the use of over-the-counter medications, vitamins, or herbal medicines	1 (0.2%)	14 (3.3%)	48 (11.3%)	191 (45.1%)	170 (40.1%)	4.21 ± 0.79	85.2
In addition to medication use, the pharmacist should offer supportive advice to patients	1 (0.2%)	11 (2.6%)	54 (12.8%)	198 (46.7%)	160 (37.7%)	4.19 ± 0.77	84.4
Encouraging treatment adherence by guiding the use of tools, devices, journals, handbooks, and instruction manuals	1 (0.2%)	17 (4.0%)	67 (15.8%)	221 (52.1%)	118 (27.8%)	4.03 ± 0.79	79.9
Guiding the use of tools to improve treatment adherence	1 (0.2%)	17 (4.0%)	72 (17.1%)	202 (47.6%)	132 (31.1%)	4.05 ± 0.81	78.7

PPR average = 87.5

SD: Strongly disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly agree

Among the participants, 92.5% responded positively to "Counseling on how to use medications". Over 80% of patients agreed that the pharmacist should advise them on how to use and store over-the-counter medications, vitamins, or herbal medicines, and provide supportive advice to patients (Table 3). According to this survey, up to 86.8% of the participating patients indicated they needed pharmaceutical care services at the clinic, while 13.2% responded in the opposite direction.

Table 4. Variation in Demand for Pharmaceutical Care Services by Patient Age Group

	The demand for pharmaceutical care services at the clinic (%)			χ2	p-value
	N	No	Yes		
Age (years)					
18 - 29	125	21 (5.0)	104 (24.5)	9.538	0.043*
30 - 39	119	19 (4.5)	100 (23.6)		
40 - 49	93	5 (1.2)	88 (20.7)		
50 - 59	64	10 (2.4)	54 (12.7)		
≥ 60	23	1 (0.2)	22 (5.2)		

The results indicate a difference in demand for pharmaceutical care services at the clinic across age groups, with the 18-29 age group having the highest demand (24.5%), p = 0.043. Additionally, the clinic's demand for pharmaceutical care services is similar to other patient characteristics (Table 4).

4. DISCUSSION

This study identified a significant difference in pharmaceutical care service demand across age groups, with patients aged 18–29 years showing the highest demand (p = 0.043). These findings align with previous studies, suggesting younger patients are more likely to seek medication-related services due to higher health literacy and access to information.

Overall, patients demonstrated a high demand for prescription review, medication information, and counseling, particularly regarding medication use, over-the-counter medications, and adherence tools. The results reinforce the evolving role of pharmacists in outpatient settings and underscore the importance of integrating pharmaceutical care into primary healthcare services.

Other demographic variables, including gender, education, occupation, and chronic disease status, showed no statistically significant association with the demand for pharmaceutical care.

5. CONCLUSION

A significant association was found between patient age and demand for pharmaceutical care services at the Family Medicine Clinic. This highlights the importance of implementing tailored pharmaceutical care strategies to address the specific needs of individual patient groups. While limited by its cross-sectional design, the study provides valuable insights for integrating pharmacists into outpatient services in Vietnam.

6. ACKNOWLEDGMENTS

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7. CONFLICT OF INTEREST

The author reports no conflicts of interest in this work.

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