A Cross-Sectional Survey on Pharmacists' Experiences in Engaging with Consumers

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ABSTRACT

Introduction: This study aimed to evaluate the role of community pharmacists and explore their experiences related to patient trust and satisfaction in urban Northern Bengaluru. **Materials and Methods:** A descriptive cross-sectional survey was conducted from September to November 2022 using a structured, bilingual questionnaire. It was administered to 145 community pharmacists who consented to participate (response rate: 72.5%) out of 200 approached. The survey captured socio-demographic data and key practice aspects like repeat patient visits, medication counselling practices, patient trust during medical emergencies, comfort in sharing personal health issues, and specific instances of patient appreciation. **Results:** The majority of respondents were male (71%), diploma-qualified (58.6%), and had over 10 years of experience (71.7%). Most pharmacists (86.2%) were above 30 years of age. A significant 63% reported repeat customer visits, while 72% stated they always provided medication counselling. In emergencies, 89% confirmed that neighbourhood patients approached them first, highlighting their accessibility and community trust. Regarding communication, 60% patients sometimes confide health concerns, and 36% reported frequent disclosure, reflecting trust levels but also signalling the need for improved engagement. Notably, pharmacists shared real-life experiences of patient appreciation, including providing emergency aid, medicine donations, and correcting prescription errors. These accounts reflect their empathetic responsive role, strengthening their position as accessible healthcare providers. **Conclusion:** The findings highlight the growing role of community pharmacists in patient-centred care and emergency response. High levels of patient revisit, trust, and appreciation indicate that pharmacists are vital healthcare touchpoints. However, gaps in formal clinical education and communication training persist. Strengthening continuing education programs with structured communication and patient engagement modules is essential to enhance their impact and support the evolving expectations of modern pharmacy practice.

Keywords: Community Pharmacist, Patient Trust, Medication Counselling, Cross-sectional Study, Primary Healthcare, Bengaluru.

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INTRODUCTION

In modern healthcare systems, trust between pharmacists and patients has emerged as a cornerstone of effective clinical care. As pharmacists evolve from traditional dispensers of medicine to essential healthcare providers, their role in improving patient outcomes, ensuring medication safety, and promoting adherence has become increasingly prominent (Hermansen and Wiederholt, 2001; Molassiotis *et al.*, 2007). A trusting relationship encourages patients to disclose relevant information, ask questions freely, and remain engaged in long-term treatment plans-all of which significantly influence the effectiveness of care (Berger B, 1993).

This trust is particularly critical in community pharmacy settings, where pharmacists are often the most accessible healthcare professionals. Trust enables pharmacists to function as public health educators, medication managers, and chronic disease counsellors. Patients who perceive pharmacists as competent, caring, and ethical are more likely to follow their guidance and use pharmacy services regularly (Bunting BA, *et al.*, 2008; and Hallit S *et al.*, 2017).

Building trust requires consistent communication, empathy, confidentiality, and professionalism. These behaviours enhance the patient's perception of pharmacists' intentions and competence (Eades *et al.*, 2011). Interventions such as pharmacist-led counselling, personalised care, health screenings, and follow-ups have been shown to improve patients' trust and satisfaction levels (Poudel A *et al.*, 2016). Likewise, implementing global quality standards such as Good Pharmacy Practice (GPP) and investing

in training programs further strengthen the pharmacist's professional image and reinforce public trust (WHO., 1997).

Despite the growing recognition of trust in healthcare, research focusing on pharmacists' perspectives on how this trust is built and maintained remains limited, especially in community settings. Understanding pharmacists' viewpoints is essential for identifying system-level gaps and training needs. It also informs strategies to bridge communication barriers and create sustainable, trust-based relationships (Rayes IK *et al.*, 2014).

Given the increasing expectations from pharmacists to deliver not just safe but also patient-centred and relational care, further studies are warranted. These studies should focus on both qualitative and quantitative aspects of trust, exploring not only patients' expectations but also the internal challenges, perceptions, and practices of pharmacists (Salter C *et al.*, 2007).

This study aims to address the knowledge gap by understanding the trust and reliance between pharmacists and consumers who regularly visit them and turn to them in times of emergency, with the goal of identifying actionable strategies to strengthen the pharmacist–patient relationship.

MATERIALS AND METHODS

Study Design

Descriptive Cross-Sectional Survey.

Study Site

Community pharmacists in the urban part of Bengaluru near hospitals and community pharmacist centres.

Study Period

The Study was conducted over 3 months from September to November 2022, with approval from the Institutional Ethics Committee of MVM College of Pharmacy, Bangalore, Karnataka, India.

Sample Size

A total of 200 pharmacists from various locations in urban Bengaluru were approached, of which 145 responded to a structured Google Form.

Inclusion Criteria

The study included community pharmacists within urban Bengaluru who were ready to provide the information.

Exclusion Criteria

Community Pharmacist who refused to provide information, and outside of urban Bengaluru.

Study Design

The questionnaire was designed in 2 sections. The first section collected socio-demographic information like age, sex, educational status, and occupational experience. 2nd section was added to gather information on the frequency of consumer visits, medication counselling, handling medical emergencies, patients' willingness to share health concerns, and overall professional experiences with consumers.

Study Procedure

The questionnaire consisted of closed-ended questions and was available in both English and Kannada. The Google Form was pre-scheduled and administered on-site for immediate responses. Verbal informed consent was obtained from all participants prior to the interview, and confidentiality of the data was assured. Participants responded to questions using predefined options such as *"yes," "no," "always," "sometimes," or "never,"* depending on the nature of each section question presented in Table 1.

Statistical Analysis

After completing the study, all data were collected and compiled in the Microsoft Excel Program to express as counts and percentages.

RESULTS

A total of 200 pharmacists working in community pharmacy stores were approached for the survey, out of which 145 agreed to participate, yielding a response rate of 72.5%. Table 2 represents the demographic details, showing that among the respondents, 103 (71.03%) were male and 42 (28.96%) were female pharmacists. Also, the age distribution indicates that a majority of participants (86.2%) were above 30 years of age. Educational qualifications revealed that most pharmacists held a Diploma in Pharmacy 85, 58.62%), followed by B. Pharmacy 57, 39.31%) and M. Pharmacy 3, 2.06%) degrees. In terms of professional experience, 71.7% of pharmacists had more than 10 years of experience working in community pharmacies, which reflects a seasoned workforce and may contribute to higher patient trust and repeat visits.

Table 1: The complete list of questions used in the survey.

No.	Questions
Q 1	Demographic Details of the Patients participated in the study
Q 2	Do you have repeat customers who come to you regularly for their health problems.
Q 3	Do you advise patient on when, how, and how long to take medicine.
Q 4	Does the patient in the neighborhood approach you in medical emergency.
Q 5	Does patient feel free to confide their health problems with you.

Also, an analysis of pharmacist responses regarding repeat patient visits indicates a strong pattern of recurring interactions, reflecting the level of trust and engagement in community pharmacy settings." Figure 1 represents that the majority of respondents (63%, n=94) reported "Always" having repeat customers. This indicates that a significant portion of pharmacists experience consistent patient return for consultations, treatments, or medication needs—suggesting strong trust and reliance on their services. About 36% (n=53) of the pharmacists indicated "Sometimes," implying a moderate frequency of repeat visits. This variation may be influenced by the type of health conditions treated (acute vs. chronic), patient preferences, or the availability of alternative providers in the area. Only 1% (n=1) of respondents selected "Never," a negligible proportion likely representing those working in settings with minimal continuity of care, such as emergency pharmacies or single-interaction environments.

Table 2: Demographic details of the participants.

Parameter	N=145
Age in Year	
18-25	11
25-30	17
30-40	61
40-50	38
>50	26
Gender	
Male	103
Female	42
Educational status	
Diploma in Pharmacy	85
B. Pharmacy (Graduation)	57
M. Pharmacy (Post-Graduation)	03
Occupation Experience	
0-5 years	16
5-10 years	25
10-15 years	46
>15 years	58
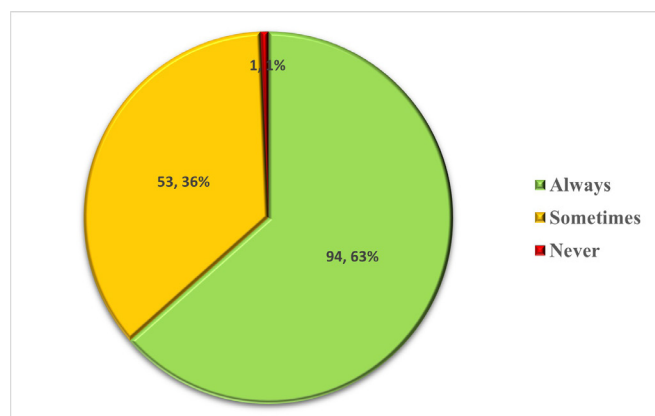
Building on the trend of repeat customer visits, the majority of pharmacists reported in Figure 2 that 72% (*n*=107) reported that they always advise patients on when, how, and how long to take their medication. This reflects a strong commitment to patient education and medication adherence. Meanwhile, 26% (*n*=39) stated they sometimes provide such advice, indicating occasional involvement in patient counselling—possibly influenced by workload, patient interest, or prescription clarity. Only 2% (*n*=2) of pharmacists never offer such guidance, suggesting rare instances where counselling might be omitted due to situational or systemic constraints.

As shown in Figure 3, a significant 89% (*n*=131) of respondents reported that they were approached by patients in their neighbourhood during medical emergencies. This finding highlights the trust and accessibility associated with community pharmacists, positioning them as first points of contact in urgent healthcare situations. Their availability, professional knowledge, and established rapport with local residents likely contribute to this reliance.

In contrast, 11% (*n*=17) of pharmacists indicated that they are not approached during emergencies. This may be attributed to factors such as the proximity of hospitals or emergency clinics, limited visibility of their services, or their practice settings being less oriented toward acute care needs.

According to Figure 4, 60% of respondents (*n*=89) indicated that patients sometimes feel comfortable sharing their health concerns. This suggests that while a majority of patients engage in some level of communication, the consistency and depth of disclosure may vary, potentially influenced by factors such as trust, privacy concerns, perceived pharmacist role, or the sensitivity of the health issue.

A substantial 36% (*n*=53) of pharmacists reported that patients frequently confide in them, indicating a high level of interpersonal trust and communication. This reflects the pharmacist's ability to foster a supportive and non-judgmental environment, which likely facilitates open dialogue and enhances the therapeutic relationship.
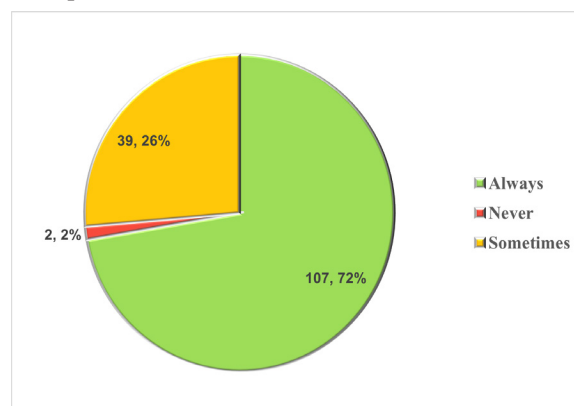

Figure 1: Do you have repeat customers who come to you regularly for their health problems.

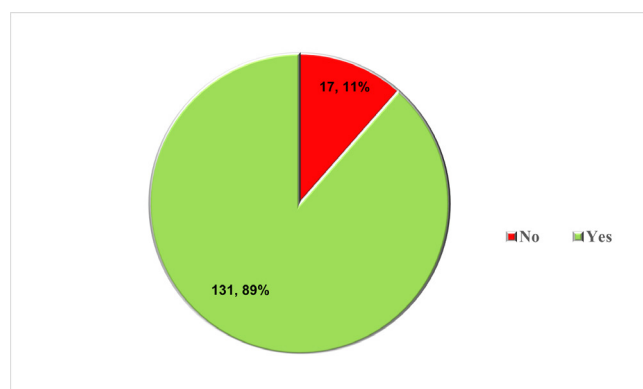**Figure 2:** Do you advise patient on when, how, and how long to take medicine.

Figure 3: Does the patient in the neighborhood approach you in medical emergency.
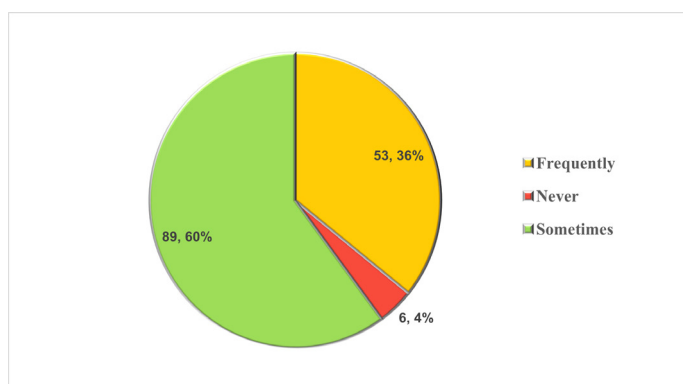

Figure 4: Does patient feel free to confide their health problems with you.

Table 3: Experiences shared by community pharmacists about consumers.

Sl. No.	Categories	Original Experiences of a Pharmacist (I)
1	Special Care for Vulnerable Patients	"Daughter's friend and their family were COVID positive. That time, I sent an ambulance to their house and admitted them to the hospital."
		"Old woman came to ask for medicine but did not have money. Thinking of my mother, I gave her the medicine."
2	Building Long-Term Trust	"Some of the patients, due to my service provided, visit from far-off places too, so they all have appreciated my service."
		"Normally, everyone is thankful. If we prescribe medicine, some patients come the next day to say how thankful they are as the medicines showed really good results in a day."
3	Availability and Responsiveness	"As this pharmacy store is open 24/7, it is helpful for the patients who need medicine in emergency situations."
		"During the Corona pandemic, they appreciate our services."
4	Emergency First Aid and Assistance	"Once an accident happened in front of me, a boy fell from a bike and his leg was injured. Suddenly, I went there and gave emergency first aid and gave water. He thanked me and told me it was very helpful."
		"Once at midnight, the patient needed insulin due to variations in diabetes levels. I understood the situation and gave him the insulin. The patient appreciated me."
5	Empathy for Financial Constraints	"A customer asked for medicine for diabetes mellitus but the cost of the medicine was high, so she suggested to get the same medicine generic which is low-cost. The customer appreciated her."
		"The patient could not afford the fees for the doctor, so he asked me if I could prescribe the tablets for him. The patient was very happy and thankful for this."
6	Professional Guidance and Expertise	"Once the doctor had prescribed the wrong dose for the patient and I corrected it before giving it. If the child had taken the wrong dose, it would have suffered."
		"Recently, I advised AMBRODIL S for a COVID patient. The customer was well satisfied with it."
7	Politeness and Patient-Centered Approach	"As compared to others, I am polite so they appreciate me."
		"The patient as appreciated for the service provided in a polite manner in an emergency situation."
8	Availability in Emergencies	"One day night pharmacy closed in time one call came and told it's an emergency they need Blood pressure tablets. So I fastly reach there and gave medicine. They told thank you and very helpful for that."
		"In an emergency situation, I used to deliver the medicines to the patient home without charging extra amount. So, patients usually appreciate me for my free service."

Conversely, only 4% (*n*=6) of respondents noted that patients never confide in them, suggesting limited rapport or possible barriers such as cultural stigma, communication gaps, or concerns regarding confidentiality and professional boundaries.

Pharmacists reported that consumers frequently express trust, gratitude, and emotional connection in response to their support—especially during emergencies and financially challenging situations. Acts such as offering free or low-cost medicines, providing emergency first aid, delivering medications during odd hours, and correcting prescription errors were highly appreciated. Patients often revisit pharmacies from distant areas, seek pharmacists' guidance in the absence of doctors, and value their polite and empathetic approach. These genuine appreciation stories, as experienced by pharmacists and presented in Table 3, highlight the pharmacist's crucial role as an accessible, trusted, and community-centred healthcare provider, particularly in times of crisis.

DISCUSSION

Community pharmacists play an increasingly important role in strengthening primary healthcare systems, especially in low- and middle-income countries like India. Often serving as the initial healthcare contact for patients, they are widely accessible for advice, emergency assistance, and medication-related queries (Anderson C *et al.*, 2004 and WHO., 2011). Their professional responsibilities have expanded notably in recent years—from simply dispensing drugs to actively engaging in patient education, managing chronic illnesses, and promoting public health initiatives (Esmailipour M *et al.*, 2021). This shift reflects growing public reliance on pharmacists, particularly in areas with limited access to physicians. However, this transformation has not been matched with adequate clinical training or communication skill development for many pharmacists, which can undermine the quality of patient care and hinder the development of trust (Salari P *et al.*, 2001). Addressing these gaps through policy reforms and continuous professional development is essential for enabling pharmacists to provide more comprehensive, patient-centred care and to build strong, trust-based relationships with their patients.

Results of our cross-sectional study show that among 145 respondents, a notable gender disparity was observed, with male pharmacists (71.03%) significantly outnumbering female pharmacists (28.96%). Age-wise distribution indicates that a majority of the participants (86.2%) were over 30 years old, suggesting that the sample largely consists of mid-career professionals who may possess practical experience in patient interactions and pharmacy operations. In terms of educational qualifications, a substantial portion of the participants held a Diploma in Pharmacy (58.6%), followed by Bachelor's degree holders (39.3%), while only a small fraction (2.1%) had completed postgraduate education. This highlights a limited presence of advanced pharmaceutical training, which may have

implications for service quality, clinical decision-making, and communication skills—areas increasingly emphasised in modern pharmacy practice. Occupational experience was relatively well distributed; 71.7% of pharmacists had more than 10 years of experience working in community pharmacies, which reflects a seasoned workforce and may contribute to higher patient trust and repeat visits. These demographic patterns are consistent with findings from a national cross-sectional study by Rajiah and Venkataraman, where older and more experienced male pharmacists demonstrated greater ethical clarity and professional confidence (Rajiah K *et al.*, 2019). Similarly, a study conducted in South India reported a comparable distribution, with a high percentage of diploma-qualified pharmacists (54.6%) and a male majority (74.8%), reinforcing the generalizability of our sample profile within the Indian context. (Durai Raja *et al.*, 2016).

The current study found that a significant majority of patients continue to use the same pharmacy for their medication needs, which is consistent with previous findings by Worley and Schommer (Worley MM *et al.*, 1999). Their research emphasises that relationship quality serves as a mediator between patient-perceived pharmacist expertise and the level of relationship commitment. Similarly, Worley-Louis and Schommer further reported a strong positive correlation between the quality of the patient–pharmacist relationship and the depth of relationship commitment (Worley-Louis *et al.*, 2002). These findings suggest that although patients value a pharmacist's expertise, trust and satisfaction—key elements of relationship quality—must first be established to foster long-term engagement.

In our study, 72% of pharmacists reported that they provide pharmaceutical care, underlining the growing emphasis on patient-centred service. This supports earlier work from New Zealand, where more than 60% of surveyed community pharmacists demonstrated a correct understanding of pharmaceutical care principles (Dunlop JA *et al.*, 2002). Furthermore, 60% of respondents in our study noted that patients often share medical concerns and seek informal medical advice, which points to the pharmacist's trusted role as a first point of contact, especially in urgent situations. This may be attributed to their accessibility, availability, and willingness to help.

Interestingly, Perepelkin's study indicated that patients with lower educational levels placed greater importance on pharmacist expertise and the pharmacist–patient relationship compared to more educated patients (Perepelkin J *et al.*, 2011). This may be particularly relevant in the Indian context, where health literacy varies widely and patients often rely on local pharmacists for informal care.

However, our study also noted that lower levels of patient satisfaction may stem from gaps in pharmacy practice in India, such as inconsistent patient counselling, lack of standardised care models, or limited communication training. This finding

highlights the need for systemic improvements in community pharmacy practices and enhanced training in communication and clinical skills.

Overall, the demographic profile of our respondents—predominantly male (71.3%), diploma-qualified (58.6%), and with over 10 years of experience—suggests a workforce that is experienced but may lack exposure to evolving models of pharmaceutical care. These characteristics are essential to consider when interpreting patient trust, satisfaction, and communication outcomes. Tailored interventions, aimed at capacity-building, patient engagement training, and regulatory standardisation, can help strengthen the pharmacist–patient relationship and elevate the role of pharmacists in primary healthcare delivery.

CONCLUSION

This study underscores the evolving and essential role of community pharmacists in primary healthcare delivery, particularly within Northern Bangalore. The results indicate that most surveyed pharmacists are experienced, male, and diploma-qualified—forming a dedicated workforce that, while long-serving, may benefit from further training in clinical and communication competencies.

A substantial proportion of pharmacists reported frequent repeat visits from patients and engagement in pharmaceutical care, highlighting a strong level of public trust and a shift toward patient-centred services. These findings align with international literature emphasising the importance of relationship quality in fostering long-term patient engagement and trust.

Moreover, the perceptions and experiences shared by community pharmacists during the study revealed a deep sense of pride and excitement in being appreciated by their customers. Many pharmacists expressed that such recognition not only motivates them but also reinforces their commitment to delivering trustworthy and high-quality care. Their passion for earning and maintaining consumer trust through dedicated service further highlights the need to support and empower them as key pillars of community health systems.

However, the study also reveals critical gaps in formal clinical education, patient counselling consistency, and standardised pharmacy practices. To address these, there is a need for policy-level support focused on capacity-building and continuing professional development. Importantly, the integration of structured communication training and patient engagement modules into Continuing Pharmacy Education (CPE) programs is recommended. Such initiatives can significantly enhance pharmacists' interpersonal and clinical skills, ultimately improving patient satisfaction and strengthening their role as trusted, accessible healthcare providers in the community.

Despite these valuable insights, the study is not without limitations. The use of self-reported data may have introduced bias, and the geographic restriction to Northern Bengaluru may limit wider applicability. Future studies with larger, multi-regional samples and objective outcome measures are recommended to validate and expand these findings.

ACKNOWLEDGEMENT

ABBREVIATIONS

WHO: World Health Organization; **CPE:** Continuing Pharmacy Education; **CP:** Community Pharmacist; **GPP:** Good Pharmacy Practice; **IEC:** Institutional Ethics Committee.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

SUMMARY

This study explored the experiences of community pharmacists in northern Bengaluru with a focus on patient trust and engagement. Most participating pharmacists were well-experienced and actively involved in community practice. They reported that patients frequently returned to their pharmacies and sought guidance on medicine, reflecting ongoing reliance and confidence in their services. Pharmacists were also approached in times of emergency, showing their accessibility as first-line healthcare providers. Many shared instances of patient appreciation, offering free medicines, giving emergency aid, and correcting prescription errors. Overall, the study highlights the crucial role of community pharmacists in primary healthcare while also pointing to the need for enhanced clinical training and communication skills to maximise their contribution.

REFERENCES

Anderson, C., Blenkinsopp, A., & Armstrong, M. (2004). The contribution of community pharmacy to improving the public's health: Summary report of the literature review 1990–2001. Health Development Agency.

Berger, B. A. (1993). Building an effective therapeutic alliance: Competence, trustworthiness, and caring. American Journal of Hospital Pharmacy, 50(11), 2399–2403. https://doi.org/10.1093/ajhp/50.11.2399

Bunting, B. A., Smith, B. H., & Sutherland, S. E. (2008). The Asheville Project: Clinical and economic outcomes of a community-based long-term medication therapy management program for hypertension and dyslipidemia. Journal of the American Pharmacists Association: JAPhA, 48(1), 23–31. https://doi.org/10.1331/JAPhA.2008.07140

Dunlop, J. A., & Shaw, J. P. (2002). Community pharmacists' perspectives on pharmaceutical care implementation in New Zealand. Pharmacy World and Science, 24(6), 224–230. https://doi.org/10.1023/a:1021526425458

Durai, R., Swaminathan, K. K., Krishnamoorthy, A., Stephen, S., Babu, N. C., Pandey, A., Chandrashekar, K., & Sivasankaran, P. (2016). Continuing pharmacy education: Effect on knowledge, attitude, and practice of community pharmacists in South

India. Indian Journal of Pharmacy Practice, 9(3), 195–198. https://doi.org/10.5530/ijopp.9.3.11

Eades, C. E., Ferguson, J. S., & O'Carroll, R. E. (2011). Public health in community pharmacy: A systematic review of pharmacist and consumer views. BMC Public Health, 11, 582. https://doi.org/10.1186/1471-2458-11-582

Esmailipour, M., Khorramdel, S., Moosazadeh, M., Amiresmaili, M., & Karamouzian, M. (2021). Pharmacists' role in improving public health: A systematic review. Health Science Reports, 4(3), e314.

Hallit, S., Zeenny, R. M., Sili, G., & Salameh, P. (2017). Situation analysis of community pharmacy owners in Lebanon. Pharmacy Practice, 15(1), 853. https://doi.org/10.18549/PharmPract.2017.01.853

Hermansen, C. J., & Wiederholt, J. B. (2001). Pharmacist-patient partnership development in an ambulatory clinical setting. Health Communication, 13(3), 307–325. https://doi.org/10.1207/S15327027HC1303_5

Molassiotis, A., Morris, K., & Trueman, I. (2007). The importance of the patient-clinician relationship in adherence to antiretroviral medication. International Journal of Nursing Practice, 13(6), 370–376. https://doi.org/10.1111/j.1440-172X.2007.00652.x

Poudel, A., & Nissen, L. M. (2016). Patient-oriented roles for community pharmacists: Pastoral care and communicative skill. Research in Social and Administrative Pharmacy, 12(4), 636–639.

Rajiah, K., & Venaktaraman, R. (2019). The effect of demographic and social factors on the decision-making of community pharmacists in ethical dilemmas. Journal of Research in Pharmacy Practice, 8(3), 174–177. https://doi.org/10.4103/jrpp.JRPP_19_15

Rayes, I. K., Hassali, M. A., & Abduelkarem, A. R. (2015). Perception of community pharmacists towards their current professional role in the healthcare system of Dubai, United Arab Emirates. Saudi Pharmaceutical Journal, 23(3), 235–240. https://doi.org/10.1016/j.jsps.2014.11.016

Salari, P., Khoshkam, M., Ardabili, H. R., Solaymani-Mohammadi, F., & Ghanei, M. (2021). Barriers to the implementation of pharmaceutical care in community pharmacies: A qualitative study. Journal of Research in Pharmacy Practice, 10(1), 25–31.

Salter, C., Holland, R., Harvey, I., & Henwood, K. (2007). 'I haven't even phoned my doctor yet.' The advice giving role of the pharmacist during consultations for medication review with patients aged 80 or more. Qualitative Health Research, 17(4), 510–520.

World Health Organization. (1997). The role of the pharmacist in the healthcare system: Preparing the future pharmacist. World Health Organization.

World Health Organization. (2011). The role of the pharmacist in the health care system: Preparing the future pharmacist—Curricular development. World Health Organization.

Worley, M. M., & Schommer, J. C. (1999). Pharmacist-patient relationships: Factors influencing quality and commitment. Journal of Social and Administrative Pharmacy, 16 (3–4), 157–173.

Worley-Louis, M. M., & Schommer, J. C. (2002). Pharmacists' therapeutic relationships with older adults: The impact of participative behaviour and patient-centeredness on relationship quality and commitment. Journal of Social and Administrative Pharmacy, 19(5), 180–189.

Perepelkin, J. (2011). Public opinion of pharmacists and pharmacist prescribing. Canadian Pharmacists Journal / Revue des Pharmaciens du Canada, 144(2), 86–93. https://doi.org/10.3821/1913-701X-144.2.86