



## Evaluation of Perceptions and Responses of Community Pharmacists Towards Pharmaceutical Services

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### KEYWORDS

Community Pharmacist, Perception, Pharmaceutical Care, Questionnaire

### ABSTRACT:

**Background:** Community pharmacist is the professional who has direct access to the public and whose duties are widely required by the public and patients. A community pharmacist is an important bridge between physicians and patients in the healthcare system, essential in ensuring patients receive the best possible pharmaceutical care.

**Objectives:** Present study was conducted among pharmacists working in community pharmacies in Uttarakhand districts to evaluate perception regarding providing pharmaceutical care and responses to assess their practice in community pharmacies.

**Methodology:** A cross-sectional study was conducted amongst randomly selected community pharmacists, and questionnaires were hand-delivered to the participants.

**Results:** A total of 400 completed questionnaires were analysed in this study. The majority of respondents were male (71.00%). Overall, 52.75% of pharmacists reported a high level of understanding of the pharmaceutical care process, and more than 60.75% demonstrated a correct conceptual grasp of pharmaceutical care principles. 167 respondents (41.75%) emphasized the importance of continuing pharmacy education in enhancing pharmacists' ability to deliver effective pharmaceutical care services. Our study shows that the majority of 50.25% of community pharmacists agreed on not discussing ongoing complementary medicine by patients.

**Conclusions:** The study found that the community pharmacy environment in Uttarakhand had a high level of understanding of the pharmaceutical care process. The researchers further identified the need for continuing education programs that would help pharmacists stay updated on the latest clinical practices, while also empowering patients with the knowledge needed to understand and manage their medications effectively. When attempting to implement these service challenges, urgent efforts by private and government sectors are essential to improve pharmaceutical care in community pharmacy settings.

## INTRODUCTION

### Pharmaceutical Care

Pharmaceutical care is a buzz-word in pharmacy. The concept of pharmaceutical care is that pharmacists are well educated and experts on medicines and it seems logical to deliver pharmaceutical care to the patients [1]. The pharmacist play role in between the doctor and the patient by providing both medicines and free medical advices without the need for an appointment. Pharmacists accept their role towards public health and make the adequate changes to carry out the service [2-3]. Pharmacists can apply their knowledge and pharmaceutical skills resources to promote their objectives fulfil with the help of defining, monitoring and addressing the population's real health needs. Pharmacy

profession will be completed only when all pharmacist known their responsibilities and do their work for accepting their social mandate to ensure the safe and effective drug therapy of the individual patient. Since one of the key roles of the pharmacist in the community pharmacy is focused on counselling, communication is essential for the pharmacist in order to fulfil his primary ethical duty [4-6].

### Community Pharmacy

Community pharmacy also known as retail pharmacy, is the most common type of pharmacy that allows the public access to their medication and advice about their health. A community pharmacist (drug specialist) is the professional who is in direct access to the public and whose duties are widely required by the public and



patients [5-6]. A community pharmacist is an important bridge between physicians and patients in the healthcare system, essential in ensuring patients receive the best possible pharmaceutical care [7].

Their responsibilities extend beyond simply dispensing medications. Here's an overview of their roles and responsibilities:

- Dispensing Medication
- Patient Counseling
- Health Promotion and Disease Prevention
- Medication Management
- Managing Minor Ailments
- Continuing Professional Development.

The major role of a community pharmacist is to dispense medications safely, accurately, and following the pertinent laws, upon receipt of a legal prescription. The important professional activity is concerned with receiving, handling, and dispensing pharmaceutical products in conformity with a licensed practitioner's intention [8-11].

## MATERIALS AND METHODS

A cross-sectional study was conducted among 400 registered community pharmacists in the Uttarakhand region of India. All participants were actively practicing in community pharmacy settings. Provided informed consent before participation. Data were collected using a structured, self-administered questionnaire that was adapted from previously validated instruments. The questionnaire comprised a total of 25 items divided into three main sections: First section- Demographic Information (6 items), which captured data such as age, gender, educational qualification, and area of residence; Second section- Knowledge and Perceptions Regarding Pharmaceutical Care (6 items); and Last section- Pharmacist Practices (13 items), which assessed the actual implementation of pharmaceutical care services in community settings. Items related to perceptions and practices were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The instrument was designed to provide a comprehensive understanding of community pharmacists' readiness, attitudes, and engagement in pharmaceutical care services [12-13].

## RESULTS AND DISCUSSION

### Demographic Profile of Participants

Table 1 summarizes the demographic characteristics of the community pharmacists who participated in the

study. A majority of the respondents were male (71.50%), while females accounted for 28.50% of the sample. With regard to educational qualifications, most participants held a Diploma in Pharmacy (n = 202; 50.50%), followed by those with a Bachelor's degree (n = 154; 38.50%) and a Master's degree (n = 44; 11.00%). In terms of age distribution, 27.25% of the participants were within the 36–40 years age group, 24.00% were aged between 31-35 years, and 16.25% were in the 26–30 years range. In terms of professional experience, the largest proportion of respondents (n = 126; 31.50%) had 7-9 years of experience, followed by 103 pharmacists (25.75%) with 3-6 years of experience, and 77 pharmacists (19.25%) with less than 3 years of professional experience. Overall, the sample primarily comprised mid-career pharmacists with diploma-level qualifications, reflecting the educational and professional landscape of community pharmacy practice in the region.

**Table 1: Demographic Characteristics of Participants**

Characteristics	No. of Participants (%) (n=400)
<b>Gender</b>	
Male	286 (71.50)
Female	114 (28.50)
<b>Age (in years)</b>	
>25	29 (7.25)
26-30	65 (16.25)
31-35	96 (24.00)
36-40	109 (27.25)
41-45	60 (15.00)
<45	41 (10.25)
<b>Education Level</b>	
Diploma	202 (50.50)
Degree	154 (38.50)
Post-Graduation	44 (11.00)
<b>Experience (in years)</b>	
>3	77 (19.25)
3-6	103 (25.75)
7-9	126 (31.50)
10-12	52 (13.00)
13-15	31 (7.75)
<15	11 (2.75)

Table 2 presents the Pharmacists' perception regarding providing pharmaceutical care. A total of 211 respondents (52.75%) agreed that all patients receiving medications should receive pharmaceutical care services. Furthermore, 186 pharmacists (46.5%) recognized the importance of reviewing patients' medications to prevent medication-related errors and to promote the appropriate



use of medicines. A strong majority (n = 243; 60.75%) strongly agreed that pharmaceutical care plays a vital role in improving patients' treatment outcomes and overall health status. In addition, 277 participants (69.25%) agreed that pharmacists are professionally skilled health personnel capable of providing pharmaceutical care. A total of 174 pharmacists (43.5%)

acknowledged their responsibility in identifying, preventing, and resolving medicine-related problems. Moreover, 167 respondents (41.75%) emphasized the importance of continuing pharmacy education in equipping pharmacists to deliver effective pharmaceutical care.

**Table 2: Pharmacists' perception regarding providing pharmaceutical care**

S.No.	Questions	Strongly disagree %	Disagree %	Neither agree nor disagree %	Agree %	Strongly agree %
1.	Patient's medications should be reviewed to prevent medicine-related errors and promote appropriate use of medications	19 (4.75)	29 (7.25)	64 (16.00)	186 (46.5)	102 (25.5)
2.	All patients receiving medicines require pharmaceutical care services	10 (2.5)	22 (5.5)	61 (15.25)	211 (52.75)	96 (24.00)
3.	Pharmaceutical care can improve patient's treatment or health outcome	00 (0.00)	00 (0.00)	43 (10.75)	114 (28.5)	243 (60.75)
4.	Pharmacists are professionally skilled health personnel in providing pharmaceutical care	00 (0.00)	32 (8.00)	25 (6.25)	277 (69.25)	61 (15.25)
5.	Pharmacists are responsible for identification, prevention and resolution of medicine-related problems	41 (10.25)	59 (14.75)	52 (13.00)	174 (43.5)	74 (18.5)
6.	Continuing pharmacy education is essential to equip pharmacists to provide pharmaceutical care	44 (11.00)	70 (17.5)	81 (20.25)	167 (41.75)	38 (9.5)

Table 3 summarizes the responses of community pharmacists regarding their current pharmaceutical care practices. The majority of respondents (n = 241, 60.25%) indicated that they provide written information about medications to patients whenever needed. Similarly, a significant proportion (n = 229, 57.25%) reported actively addressing and resolving medication-related problems as part of their routine practice. Ensuring patient compliance with prescribed medications was practiced by 208 (52.00%) pharmacists, while 201 (50.25%) discussed complementary medications the patient may be using. Promoting health awareness was reported by 192 (48.00%) respondents, and 168

(42.00%) engaged in discussions about the patient's general health issues. A total of 162 (40.5%) pharmacists ensured that patients fully understood their dosage regimen, and 157 (39.25%) explained the dose and frequency of medications. Only 114 (28.5%) explained how the medication should be administered. Furthermore, 143 (35.75%) pharmacists reported following up with patients regarding their health status, while 139 (34.75%) asked patients about their current medications. Inquiries about comorbid conditions were made by 112 (28.00%) respondents. Finally, 133 (33.25%) pharmacists discussed patients' concerns related to their medications.



Table 3: Pharmacists' responses to assess their practice in community pharmacies

S.No.	Questions	Never %	Rarely %	Sometimes %	Often %	Always %
1.	Ask about current medications of the patient	71(17.75)	41(10.25)	139(34.75)	37(9.25)	112(28.00)
2.	Ask about comorbid diseases the patient may have	83(20.75)	112(28.00)	106(26.5)	41(10.25)	58(14.5)
3.	Explain dosage regimen (dose and frequency) to the patient	16(4.00)	22(5.5)	76(19.00)	129(32.25)	157(39.25)
4.	Explain dosage regimen (administration) to the patient	65(16.25)	94(23.5)	78(19.5)	49(12.25)	114(28.5)
5.	Ensure understanding of dosage regimen by the patient	162(40.5)	98(24.5)	78(19.5)	37(9.25)	25(6.25)
6.	Discuss complementary medications the patient may be taking	201(50.25)	64 (16.00)	61 (15.25)	42 (10.5)	32 (8.00)
7.	Discuss general health issues of the patient	168(42.00)	112 (28.00)	58(14.5)	16(4.00)	46(11.5)
8.	Discuss the patient's concerns about medications	112 (28.00)	34 (8.5)	82(20.5)	39(9.75)	133 (33.25)
9.	Ensure patient compliance with the medications	208 (52.00)	91 (22.75)	52 (13.00)	23 (5.75)	26(6.5)
10.	Provide the patient written information about medications whenever needed	00 (00.00)	06 (1.5)	26 (6.5)	127 (31.75)	241 (60.25)
11.	Follow up with the patients about their health	143 (35.75)	82 (20.5)	92 (23.00)	36 (9.00)	47(11.75)
12.	Solve medication-related problems whenever needed	17 (4.25)	19 (4.75)	53 (13.25)	82 (20.5)	229 (57.25)
13.	Promote health awareness	12 (3.00)	39 (9.75)	48 (12.00)	109 (27.25)	192 (48.00)

## CONCLUSION

The study found that the community pharmacy environment in Uttarakhand had a high level of understanding of the pharmaceutical care process (52.75%). The researchers further identified the need for continuing education programs that would help pharmacists stay updated on the latest clinical practices, while also empowering patients with the knowledge needed to understand and manage their medications effectively. This dual approach is crucial in overcoming barriers to medication adherence and improving overall patient health outcomes. When attempting to implement these service challenges, urgent efforts by the private and government sectors are essential to improve

pharmaceutical care in community pharmacy settings. However, most community pharmacists admit that they need to be more informed and knowledgeable about medication, have adequate training, and have better clinical outcomes. Pharmacy practitioners working in community pharmacies in Uttarakhand are actively engaged in the delivery of pharmaceutical care to patients. We suggest improving and implementing communication and interaction between the pharmacist, other healthcare professionals, and patients. We improve to drive change because community pharmacists showed a strong interest amongst them to learn more and providing adequate and beneficial pharmaceutical care for patients. However, most community pharmacists admit that they need to be more informed



and knowledgeable about medication, have adequate training, and have better clinical outcomes. Our study will help us understand the challenges faced by community pharmacists in the various districts.

## AUTHOR CONTRIBUTIONS

Conceptualization, S.R. and Y.J.; methodology, S.R. and Y.J.; formal analysis, S.R. and Y.J.; investigation, S.R.; resources, S.R.; data curation, S.R. and S.R.; writing-original draft preparation, S.R.; writing-review and editing, Y.J.; supervision, Y.J.

All authors have read and agreed to the published version of the manuscript.

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## INFORMED CONSENT STATEMENT

Informed consent was obtained from all subjects involved in the study.

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## CONFLICT OF INTEREST

The authors declare no conflicts of interest regarding the publication of this paper. Authors also confirm that they have no affiliations with or involvement in any organization with financial interests, including the large chain pharmacy from where the data was collected.

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