

A Research On The Attitude Of The Pharmacist Towards Their Skilled Services In Delivering Pharmaceutical Care

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ABSTRACT

The American Public Health Association (APHA) states that the traditional product-oriented tasks of dispensing and distributing medications and medical supplies are no longer the only responsibilities of the pharmacist. The current pharmacy professionals provide additional administrative, public health, and patient-focused services. Pharmacotherapy, access to care, and prevention services are just a few of the many aspects of public health that might profit from pharmacists' special knowledge. Pharmacists have shown to be a reliable source of knowledge on health and medications in addition to delivering medication. The additional role includes medication order review, patients' medication history interview, participating in ward rounds, adverse drug monitoring, drug interaction studies, Therapeutic drug monitoring, delivering medication information at the drug information and poison information Centre, Patient counselling regarding safe and rational use of drugs. The current study focused on the role of pharmacist to provide additional services in addition to dispensing of drugs. It was a Cross sectional prospective observational study conducted with the pharmacists working in Government hospitals, Primary Health Centers, Private hospitals and as well as Community Pharmacies. The study was conducted in five districts, by covering rural, urban and semi urban areas. All the pharmacists participated were personally assessed by conducting a direct interaction offline and online mode. This was performed to study the attitude of the pharmacists towards providing additional services to the patients apart from dispensing of drugs to provide better pharmaceutical care. It was done by using a validated questionnaire as the tool. All of them professionally participated in the assessments and fully supported the study. The study concluded that patient counselling plays a key role in pharmaceutical care by the pharmacist.

Keywords: Attitude, Pharmacist, Skilled Services, Pharmaceutical Care

INTRODUCTION

Healthcare delivery is a complex process with interdisciplinary processes, including pharmaceutical ordering, preparation, and distribution. Various checkpoints and safeguards are necessary to identify issues before drugs reach patients. Pharmacists play a crucial role in identifying and preventing errors, as they are responsible for ensuring patient safety. A pharmacist is a vital member of healthcare teams, responsible for error detection and prevention, and their involvement in drug management strategy is crucial for enhancing patient safety and effectiveness.¹

The early 1990s recognition of evidence for clinical decision making has led to challenges in implementing clinical standards in pharmacy, as patients often receive care beyond their expertise, resulting in harm and complications.²

Studies show improper pharmaceutical use and lack of awareness can lead to decreased efficacy and waste. A positive attitude can improve practice standards and implementation.³ Primary care physicians and community pharmacists aim to improve patient outcomes through collaborative practice, focusing on patient-centered care for self-actualization, quality of life improvement, financial burden reduction, and customer loyalty⁴.

Pharmacists play a crucial role in identifying and reporting adverse drug reactions (ADRs) in healthcare, preventing under reporting and preventing premature patient illness and death⁵. Community pharmacists' patient counselling services have improved clinical and self-reported outcomes, but their expanded roles in underdeveloped nations often focus on prescriptions, highlighting the need for improved patient-focused services⁶. Pharmacists are trusted healthcare professionals for patient information on safe, appropriate, and economical use of pharmaceuticals, aiming to improve patient health, improve clinical outcomes, and reduce costs⁷. People often lack knowledge about pharmacists' duties and obligations, leading to high patient satisfaction. Despite traditional pharmacy models not meeting patient needs, recent years have seen a shift towards providing services for improving health outcomes, such as immunizations, medication reviews, and medication adherence strategies.⁸

Attitudes are a state of mind or stance, influencing a subject's response to a stimulus. They are often evaluated, but research often finds little correlation between attitudes and practices, indicating a need for further understanding.⁹ The

Pharmacy Council of India established legislation to enhance healthcare quality, maintain professional standards, reduce costs, and prevent drug addiction, focusing on accurate, scientific research-based practice and prohibiting disobedience.¹⁰ Healthcare workers' behavior and empathy are crucial for patient health. Professionalism boosts therapy adherence, improves outcomes, and lowers costs. However, many lack these qualities, leading to poor patient care and rising healthcare costs. Lack of training for healthcare professionals is a significant issue.¹¹ Advancements in the pharmacy profession have transformed pharmacists from drug formulation and distribution to providing patient care and drug information, revolutionizing pharmacy practice and pharmaceutical care. Good Pharmacy Practice incorporates pharmaceutical care principles, positively impacting healthcare costs and management.¹²

RESULT AND DISCUSSION

1. Demographic Characteristics.

1.1 Gender.

838 pharmacists participated in the study of pharmaceutical care as it was an advanced research. All of them performed the assessments and fully supported the study with their personal views and opinions. Out of 838 pharmacists, 615 (73.39%) were females and 223 (26.61%) were males (Table-1).

1.2 Distribution of Respondents.

The pharmacists were selected from different regions of the State of Kerala on a random basis. (Table -1).

1.3 Qualification of the Pharmacist.

All pharmacists selected were registered with Kerala State Pharmacy Council. Among the qualification Pharm D qualified pharmacist were excluded as they are more educated and trained in Pharmaceutical Care in their curriculum. Qualifications matters a lot when it comes into the practice of the profession. The qualification of the pharmacists varied from Diploma in Pharmacy (D. Pharm) to Master of Pharmacy (M Pharm) as shown in the table-1.

1.4 Area of Work.

Among the pharmacists most of them (466) were working in community pharmacies while 310 were working in private hospital pharmacy, 62 were working in Government Public Health Centres (Table-1)

1.5 Geographical Region.

The attitude of the pharmacist towards professional practice to provide pharmaceutical care may vary according to the geographic region where the pharmacy is located. It was observed that 471(56.20%) pharmacies were established in rural areas and 367(43.78%) in urban areas of various districts of Kerala

Table 1: Demographic Characteristics.

Gender.	Frequency	Percentage
Female	615	73.39
Male	223	26.61
Total	838	100
Distribution of Respondents District Wise.		
Alappuzha	175	20.88
Kottayam	164	19.57
Kozhikode	151	18.02
Thrissur	172	20.53
Trivandrum	176	21.00
Total	838	100
Qualifications.		
D. Pharm	587	70.05
B. Pharm	218	26.01
M. Pharm	33	3.94
Total	838	100
Distribution of Patients according to Study Area.		
Community Pharmacy	466	55.61
Private Hospital	310	36.99
Primary Health Centre	62	7.40
Total	838	100

Geographical Region.		
Rural	471	56.20
Urban	367	43.78
Total	838	100

2. Additional Services.

In addition to regular pharmaceutical care, pharmacist also provide additional services for better healthcare. This was assessed by using a validated questionnaire as the tool. The questionnaire used for the assessment is tabulated in Table-2. The responses of the pharmacists were collected and tabulated based on various parameters which included gender, age group, qualifications, working area, experience, working hours and number of pharmacists working in a pharmacy and Geographic area.

Table-2. Questionnaire to assess Additional Services

Sl. No	Questions	Question Code
1	All patients taking medicines require pharmacists' help.	ADDSERV1
2	My patients will trust me more if I provide counselling.	ADDSERV2
3	I try my best to provide patients with suitable medicines.	ADDSERV3
4	Is generic substitution practiced and is it explained?	ADDSERV4
5	Counselling will attract more patients to my pharmacy.	ADDSERV5
6	Involvement in counselling will improve my job satisfaction.	ADDSERV6

2.1 Additional Services based on Gender.

Additional services based on gender was assessed by using questions ADDSERV 1 to ADDSERV 6 for the participating Pharmacists were tabulated in Table -2.1

Out of 838 participants 223 males and 615 females were given their responses. The responses for all six Additional Service based questions were positive. No statistical significance was observed in any of the categories.

Table-2.1 Additional Services based on Gender.

Question Code	Responses	Male		Female		p-value
		N	%	N	%	
ADDSERV1	Yes	210	94	579	94	0.99
	No	11	5	30	5	
	Not Specific	2	1	6	1	
ADDSERV2	Yes	207	93	567	92	0.89
	No	3	1	7	1	
	Not Specific	13	6	41	7	
ADDSERV3	Yes	223	100	607	99	0.23
	No	0	0	7	1	
	Not Specific	0	0	1	0	
ADDSERV4	Yes	205	92	546	89	0.11
	No	18	8	58	9	
	Not Specific	0	0	11	2	
ADDSERV5	Yes	206	92	587	95	0.13
	No	5	2	5	1	
	Not Specific	12	5	23	4	
ADDSERV6	Yes	215	96	605	98	0.22
	No	4	2	5	1	
	Not Specific	4	2	5	1	
Total		223		615		

2.2 Additional Services based on Age Group.

Additional Services provided by the Pharmacists based on Age was assessed by on questions ADDSERV-1 to ADDSERV-6 for the 838 participants were tabulated in Table-2.2.

Among 135 participants who are on Age Group 20-25 years all expressed good response on all questions favoring additional services to the patients. Similar response was observed in case of participants in the Age ranges 26 to 30 years, 31 to 35 years, 36 to 45 years and 46 to 50 years. ADDSERV 4 showed statistical differences between the

responses of the categories. This indicated that pharmacists strongly believed that the pharmaceutical care can be used as a tool for the feedback to optimize drug use.

Table-2.2. Additional Services based on Age Group

Question Code	Responses	20 to 25		26 to 30		31 to 35		36 to 45		46 to 50		p-value
		N	%	N	%	N	%	N	%	N	%	
ADD SERV1	Yes	124	92	316	93	98	98	154	95	97	95	0.438
	No	8	6	20	6	1	1	7	4	5	5	
	Not Specific	3	2	3	1	1	1	1	1	0	0	
ADD SERV2	Yes	119	88	315	93	93	93	152	94	95	93	0.147
	No	0	0	7	2	1	1	1	1	1	1	
	Not Specific	16	12	17	5	6	6	9	6	6	6	
ADD SERV3	Yes	135	100	334	99	100	100	159	98	102	100	0.341
	No	0	0	5	1	0	0	2	1	0	0	
	Not Specific	0	0	0	0	0	0	1	1	0	0	
ADD SERV4	Yes	112	83	301	89	91	91	149	92	98	96	0.005
	No	18	13	37	11	8	8	9	6	4	4	
	Not Specific	5	4	1	0	1	1	4	2	0	0	
ADD SERV5	Yes	128	95	322	95	99	99	148	91	96	94	0.205
	No	3	2	4	1	0	0	3	2	0	0	
	Not Specific	4	3	13	4	1	1	11	7	6	6	
ADD SERV6	Yes	132	98	331	98	100	100	159	98	98	96	0.5
	No	2	1	5	1	0	0	0	0	2	2	
	Not Specific	1	1	3	1	0	0	3	2	2	2	
Total		135		339		100		162		102		

2.3 Additional Services based on Qualification.

Additional Services provided by the Pharmacists based on Qualifications were assessed by questions ADD SERV 1 to ADD SERV 6 for the 838 participants were tabulated in Table-2.3.

Among 581 participants who have Diploma in Pharmacy (D. Pharm) qualifications all expressed good response on all questions. Similar response was observed in case of 226 participants who have qualified with Bachelor Degree in Pharmacy (B. Pharm) as well as 31 participants with Master in Pharmacy (M. Pharm). No statistical significance was observed in any of the categories.

Table-2.3. Additional Services based on Qualification

Question Code	Responses	D. Pharm		B. Pharm		M. Pharm		p-value
		N	%	N	%	N	%	
ADD SERV1	Yes	552	95	210	93	28	90	0.77
	No	25	4	14	6	2	6	
	Not Specific	5	1	2	1	1	3	
ADD SERV2	Yes	535	92	209	92	30	97	0.815
	No	9	2	1	0	0	0	
	Not Specific	37	6	16	7	1	3	
ADD SERV3	Yes	575	99	224	99	31	100	0.719
	No	6	1	1	0	0	0	
	Not Specific	0	0	1	0	0	0	
ADD SERV4	Yes	523	90	200	88	28	90	0.91
	No	49	8	24	11	3	10	
	Not Specific	9	2	2	1	0	0	
ADD SERV5	Yes	545	94	217	96	31	100	0.738
	No	8	1	2	1	0	0	
	Not Specific	28	5	7	3	0	0	
ADD SERV6	Yes	568	98	222	98	30	97	0.922
	No	6	1	2	1	1	3	
	Not Specific	7	1	2	1	0	0	
Total		581		226		31		

2.4 Additional Services based on Area of Work.

Additional Services based on Area of Work for the 838 participants were assessed by using questions ADDSERV 1 to ADDSERV 6 and were tabulated in Table -2.4.

Among 466 participants who were working in Community Pharmacy all expressed good response on all questions. Similar response was observed in case of participants who were working in Hospital Pharmacy and Public Health Centres. Statistical significance was observed in ADDSERV 4 responses

Table-2.4. Additional Services based on Area of Work

Question Code	Responses	Community Pharmacy		Hospital Pharmacy		PHC		p-value
		N	%	N	%	N	%	
ADDSERV1	Yes	440	94	287	93	62	100	0.224
	No	21	5	20	6	0	0	
	Not Specific	5	1	3	1	0	0	
ADDSERV2	Yes	429	92	287	93	58	94	0.81
	No	5	1	5	2	0	0	
	Not Specific	32	7	18	6	4	6	
ADDSERV3	Yes	462	99	306	99	62	100	0.681
	No	4	1	3	1	0	0	
	Not Specific	0	0	1	0	0	0	
ADDSERV4	Yes	422	91	277	89	52	84	0.045
	No	42	9	25	8	9	15	
	Not Specific	2	0	8	3	1	2	
ADDSERV5	Yes	442	95	291	94	60	97	0.652
	No	7	2	3	1	0	0	
	Not Specific	17	4	16	5	2	3	
ADDSERV6	Yes	457	98	302	97	61	98	0.751
	No	4	1	5	2	0	0	
	Not Specific	5	1	3	1	1	2	
Total		466		310		62		

2.5 Additional Services based on Experience.

Additional Services provided by the Pharmacists were assessed based on questions ADDSERV1 to ADDSERV 6 based on Experiences for the 838 participants were tabulated in Table -2.5.

Among 337 participants who have less than one year experience all expressed good responses on all questions. Similar response was observed in participants with Two to Five years and more than Five years of experiences. Statistical significance was observed in ADDSERV 4 and 6 categories.

Table-2.5. Additional Services based on Experience

Question Code	Responses	Less than one year		Two to five years		More than five years		p-value
		N	%	N	%	N	%	
ADDSERV1	Yes	309	92	264	96	216	96	0.092
	No	23	7	9	3	9	4	
	Not Specific	5	1	3	1	0	0	
ADDSERV2	Yes	307	91	259	94	208	92	0.627
	No	4	1	4	1	2	1	
	Not Specific	26	8	13	5	15	7	
ADDSERV3	Yes	333	99	274	99	223	99	0.511
	No	4	1	1	0	2	1	
	Not Specific	0	0	1	0	0	0	
ADDSERV4	Yes	290	86	250	91	211	94	0.042
	No	42	12	23	8	11	5	
	Not Specific	5	1	3	1	3	1	
ADDSERV5	Yes	321	95	263	95	209	93	0.266
	No	6	2	2	1	2	1	
	Not Specific	10	3	11	4	14	6	

ADD SERV 6	Yes	329	98	271	98	220	98	0.047
	No	7	2	0	0	2	1	
	Not Specific	1	0	5	2	3	1	
Total		337		276		225		

2.6 Additional Services based on Working hours.

Additional Services provided by 838 Pharmacists based on working hours was assessed by using questions ADDSERV1 to ADDSERV 6 and were tabulated in Table -2.6.

Among 343 participants who were working for less than 8 hours, all expressed positive responses on all questions. Similar response was observed in case of 495 participants who were working for more than 8 hours. No statistical significance was observed in these responses.

Table-2.6. Additional Services based on Working hours.

Question Code	Responses	Less than 8 hours		More than 8 hours		p-value
		N	%	N	%	
ADD SERV 1	Yes	323	94	466	94	0.72
	No	19	6	22	4	
	Not Specific	1	0	7	1	
ADD SERV 2	Yes	314	92	460	93	0.6
	No	7	2	3	1	
	Not Specific	22	6	32	6	
ADD SERV 3	Yes	338	99	492	99	0.88
	No	4	1	3	1	
	Not Specific	1	0	0	0	
ADD SERV 4	Yes	307	90	444	90	0.73
	No	29	8	47	9	
	Not Specific	7	2	4	1	
ADD SERV 5	Yes	323	94	470	95	0.81
	No	3	1	7	1	
	Not Specific	17	5	18	4	
ADD SERV 6	Yes	336	98	484	98	1.00
	No	3	1	6	1	
	Not Specific	4	1	5	1	
Total		343		495		

2.7 Additional Services based on Number of Pharmacist.

Additional Services based on number of Pharmacists for the 838 participants were assessed by using questions ADDSERV 1 to ADDSERV 6 and were tabulated in Table – 2.7.

Among 444 participants who were working in pharmacies alone or along with another pharmacist, all expressed Good Practice on all questions. Similar response was observed in case of 234 participants who were working in group of three to Five pharmacists and 160 pharmacists who work in group of more than five pharmacists. Statistical significance was observed between the categories for the response to ADDSERV 2 and ADDSERV 3.

Table-2.7. Additional Services based on Number of Pharmacist

Question Code	Responses	One to Two Pharmacists		Three to Five Pharmacists		More than Five Pharmacists		p-value
		N	%	N	%	N	%	
ADD SERV 1	Yes	422	95	221	94	146	91	0.30
	No	18	4	10	4	13	8	
	Not Specific	4	1	3	1	1	1	
ADD SERV 2	Yes	409	92	221	94	144	90	0.05
	No	3	1	2	1	5	3	
	Not Specific	32	7	11	5	11	7	
ADD SERV 3	Yes	441	99	233	100	156	98	0.04
	No	3	1	0	0	4	3	
	Not Specific	0	0	1	0	0	0	
ADD SERV 4	Yes	396	89	213	91	142	89	0.87
	No	43	10	18	8	15	9	
	Not Specific	5	1	3	1	3	2	

ADD SERV 5	Yes	422	95	226	97	145	91	0.13
	No	5	1	2	1	3	2	
	Not Specific	17	4	6	3	12	8	
ADD SERV 6	Yes	438	99	228	97	154	96	0.48
	No	3	1	3	1	3	2	
	Not Specific	3	1	3	1	3	2	
Total		444		234		160		

2.8 Additional Services based on Geographic Region.

Additional Services provided by 838 Pharmacists based on geographic region was assessed by using questions ADDSERV1 to ADDSERV 6 and were tabulated in Table -2.8.

Among 471 participants who were working in rural areas, all expressed positive responses on all questions. Similar response was observed in case of 367 participants who were working in urban areas. Statistical significance was observed in the responses for ADDSERV 4.

Table- 2.8 Additional Services Based on Geographic Region

Question Code	Responses	Rural		Urban		p-value
		N	%	N	%	
ADD SERV 1	Yes	445	94	294	80	0.22
	No	21	4	20	5	
	Not Specific	5	1	3	1	
ADD SERV 2	Yes	434	92	292	80	0.81
	No	5	1	5	1	
	Not Specific	32	7	20	5	
ADD SERV 3	Yes	467	99	363	99	0.68
	No	4	1	3	1	
	Not Specific	0	0	1	0	
ADD SERV 4	Yes	427	91	334	91	0.05
	No	42	9	25	7	
	Not Specific	2	0	8	2	
ADD SERV 5	Yes	447	95	348	95	0.65
	No	7	1	3	1	
	Not Specific	17	4	16	4	
ADD SERV 6	Yes	462	98	359	98	0.75
	No	4	1	5	1	
	Not Specific	5	1	3	1	
	Total	471		367		

CONCLUSION

Pharmacist provided some additional services to the patients along with pharmaceutical care. Current trends in pharmaceutical care showed that pharmacist did not involve much in medication data, Adverse Drug Reaction studies and monitoring of the progress of the drug therapy after dispensing. The main barrier was pointed out was the curriculum is inadequate to practice pharmaceutical care. Most of them believed that patients require pharmacists help for taking medicines as directed. All patients preferred providing drugs with appropriate counselling. In the study pharmacists said that the trust on pharmacists will improve if they provide counseling. They accepted the fact that they try their best to provide patients with suitable medicines. Most of them accepted that generic substitution is practiced and it is explained to the patient in advance. Counselling improved drug administration and compliance. Moreover, majority of them said that counselling will attract more patients to the pharmacy and the involvement of the pharmacist in counselling will improve job satisfaction.

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