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A Study On Professionalism And Pharmaceutical Care Services Provided By Pharmacists In Various Regions Of A Southern State Of India

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ABSTRACT

Pharmaceutical Care represents a change in pharmacy practice from one that is focused on medication products to one that is patient-centered and aims to achieve specific goals that enhance patients' quality of life. Pharmacists must become caregivers, communicators, decision-makers, teachers, researchers, lifelong learners, leaders, and managers in order to deliver Pharmaceutical Care. These roles will enable them to provide tailored treatment. Today, Pharmaceutical Care is a well-established idea and practice. This section will cover the various definitions of Pharmaceutical Care and related practices, as well as historical turning points in their evolution to the present, with the intention of moving on to how pharmacy education influenced their creation and application.

It was a Cross sectional prospective observational study conducted with registered pharmacists. The pharmacists included from all the areas like, Government hospitals, PHCs, Private hospitals and as well as Community Pharmacies. The study was conducted in five districts, by covering rural, urban and semi urban areas. The evaluation were made based on Gender, Age group, Qualifications, Experience, Number of hours working and Number of pharmacists working in the same pharmacy and Geographic area. In all most all the cases positive response was recorded in majority of the pharmacists. Poor response was observed where pharmaceutical care was considered as just as a medication counselling service and the role of pharmacists was considered as secondary.

Key words: Professionalism, Pharmaceutical Care, Care Services, Pharmacists.

Introduction:

In the past ten years, the pharmacy profession has expanded to include patient care in addition to medication manufacturing and distribution. In the past century, compounding was the main emphasis of the pharmaceutical industry. Compounding duties have significantly decreased over the last ten years, primarily leaving dispensing functions. Recently, the profession has had to develop a new role because dispensing alone is not sufficient to meet everyone's demands. Pharmaceutical care ideas need to be part of the pharmacist's work description in order to change

the role of the modern pharmacist from one of a drug seller in a business to one of a health care expert. Helping people and society get the most out of medications and other health care goods and services is the aim of a pharmacy profession.¹

With a focus on comprehensive drug management, clinical pharmacists are licensed healthcare professionals with substantial education and training who operate in a range of patient care settings. These skilled pharmacists are dedicated to using medication to achieve the best possible outcomes for patients, with a focus on cost-effectiveness, side effect identification, monitoring, and dosage. A growing body of research is highlighting the critical role that clinical pharmacists play as integral members of the patient care team for both acute care and ambulatory patients.²

Healthcare delivery is a multifaceted process with many integrated and interconnected processes, each of which has the potential to go wrong. Injury to patients may happen from any one failure in the chain of events. Multiple checkpoints and safeguards should be in place to catch problems before the drug reaches the patient because the ordering, preparation, and distribution of medications are multidisciplinary processes in and of themselves.³

The dispensing model's underlying presumptions shouldn't be used by pharmacists to create novel pharmacological care procedures. Before it becomes necessary for any of us to receive pharmaceutical care, they ought to try to assume this new position. If not, we won't get the chance to carry it out.⁴

A philosophy of practice is essential for any patient care profession because it sets the guidelines and standards that will influence decisions and behaviors in the workplace⁵. A pharmacist's job is not to perform the duties of a physician, nurse, dispensing pharmacist, or any other kind of medical practitioner. Rather, a whole new class of healthcare professionals in the medical field is the pharmacy professional⁶. Despite having sufficient information, pharmacy professionals did not give the right recommendations in practice. Inadequate data obtained during patient interactions was one of the contributing factors. The pharmacy personnel must improve their information-gathering methods⁷.

Despite being a crucial part of professional competency, clinical decision-making abilities are not as well developed in pharmacy as they are in other health professions. A thorough understanding of the best ways for pharmacists to acquire and apply therapeutic decision-making abilities in clinical practice is urgently needed. This commentary's objectives are to define clinical decision-making in pharmacy practice and to offer a clinical decision-making model that is consistent with a philosophical underpinning of pharmacy practice. The model can be useful in pharmacist education programme and offers a framework for comprehending patient-facing healthcare services in actual practice⁸. In order to guarantee that prescription drugs are taken as directed, enhance patient outcomes, and increase quality of life metrics related to health, pharmacists must be able to communicate effectively with patients, physicians, and other healthcare professionals. In order to provide successful communication, pharmacists must feel that it is essential and possess the skills, time, and resources necessary to do so⁹.

There is currently no uniform policy governing pharmacy practice worldwide. But operating procedures differ between nations. In a number of practice settings, pharmacists frequently offer integrated, accessible, and responsible healthcare services. With a greater focus on teamwork and patient-centered care, they are also capable of establishing and maintaining partnerships between patients and other providers. A very well pharmacist should be a compassionate carrier, decision-maker, active communicator, lifelong learner, and good manager, as well as possessing good leadership qualities and having the capacity to be a teacher and researcher, according to the "seven-star pharmacist" concept developed by the International Pharmaceutical Federation (FIP)

and WHO. As a result, the duties of pharmacists have changed significantly, and they now play a more significant role in addressing patients' requirements as specialists in medication management¹⁰.

Many developed nations have acknowledged and put into practice the new roles that community pharmacists play in the interdisciplinary delivery of healthcare interventions. Numerous studies in developing nations looked into various facets of the shift in the function of pharmacists. Many of these papers claimed that while pharmacists had positive attitudes toward pharmaceutical care practices, their implementation was hampered by numerous global and national barriers¹¹.

The responsibility in its own profession is another matter pertaining to the gap between traditional dispensing and the pharmaceutical care responsibilities of pharmacy. According to Penna's description of the pharmaceutical care philosophy, pharmacists work with patients to enhance health outcomes; they take full credit for successful results and accept responsibility for unsuccessful ones. Despite working closely with doctors, pharmacists treat patients directly and without the assistance of a third party. Traditional dispensing services, on the other hand, are supplied at the direction or request of prescribers⁴.

According to the definition of public health, it is "what we as a society do to ensure that the environments in which people are living can be healthy." Initiatives in public health, as opposed to those in medicine, focus on illness prevention and take the requirements of the population in general into account. In order to deliver a high level of patient care, treat each patient as an individual, and respect their dignity, pharmacists must have a high degree of interpersonal skills. Pharmacists must uphold standards of professional conduct while dealing with other healthcare providers and foster positive working interactions with colleagues¹².

Pharmaceutical Care and Pharmacy Education.

Pharmacy Institutions across the nation provide a wide range of educational programme of varying quality. Only a small number of institutions uphold internationally recognized standards. Since its foundation, the profession of pharmacy education has come a long way—nearly 85 years—but there are still concerns about the calibre of Indian pharmaceutical education¹³.

The Pharmacy Council of India created legislation primarily for the following reasons: to improve healthcare quality, to uphold professional standards for pharmacists, to cut healthcare expenses, and to prevent drug addiction. The regulations' rules primarily addressed how pharmacists should interact with patients, the general public, and other licensed pharmacists. The practice of professions should be founded on accurate scientific research free from bias, and it should not support anyone who disobeys this¹⁴.

The foundation for introducing and growing pharmaceutical care services is cultivating a positive mindset and attitude among pharmacists and student pharmacist regarding Pharmaceutical Care. It is equally crucial to encourage future pharmacists to have the same optimistic outlook¹⁵.

Developing professional expertise, patient-facing skills, and communication abilities are all necessary for these new professions. Pharmacists work with people from all walks of life and offer a vital service to society. Community pharmacies are frequently the first stop for patients seeking treatment or advice for their common ills because of their accessibility and the welcoming nature of the pharmacists there. Additionally, pharmacists have the chance to contribute to public health plans, support public health initiatives, and help with decision-making¹².

Future pharmacists will have many chances to use bioinformatics to support their practice and enhance treatment in both emergency and outpatient settings. We identified issues that can be regarded technology oriented while also identifying others, such as electrolytes monitoring, that weren't technology focused when evaluating the bioinformatics education needs of students. The

objective is to create pharmacists who are aware of and ready for an informatics-supported practice throughout the pharmaceutical use process. Future pharmacists must comprehend how informatics contributes to patient outcomes improvement and pharmaceutical safety¹⁶.

METHODOLOGY

It was a cross sectional prospective observational study design. The questionnaire was prepared and tested for their quality, language and content validity. the questionnaire was approved by the Institutional Ethical Committee. The study was conducted in five districts, by covering rural, urban areas. The pharmacists were included from all the areas like, Government hospitals, PHCs, Private hospitals and as well as Community Pharmacies.

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 their professional practice to provide pharmaceutical care. It was done by using a validated questionnaire as the tool. The procedure was explained to all the pharmacists and their informed consent was obtained.

RESULTS AND DISCUSSIONS

1. Demographic Characteristics.

1.1 Gender.

Out of 850 pharmacists who have participated for the study of KAP only 838 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. Pharmaceutical Care.

The questions 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 Pharmaceutical care

Sl No	Questions	Question Code
1	Pharmaceutical care is just a medication counselling service.	CARE1
2	The pharmacist plays secondary role in the pharmaceutical care process.	CARE2
3	The aim of pharmaceutical care is to ensure the safety, efficacy, economy and rational use of medicines.	CARE3
4	Pharmaceutical care provides a feedback to optimize drug use.	CARE4
5	Providing pharmaceutical care offers me job satisfaction.	CARE5
6	I consider patients' economic situation in the process of pharmaceutical care provision.	CARE6
7	I think patients expect me to provide better pharmaceutical care.	CARE7
8	I would like to provide pharmaceutical care but lack of basic working conditions.	CARE8
9	I can provide more comprehensive pharmaceutical care than what is provided now.	CARE9
10	Do you think continuous pharmaceutical education is necessary for pharmacists to practice pharmaceutical care?	CARE10

2.1 Pharmaceutical Care Based on Gender.

Pharmaceutical care based on gender was assessed by using questions Care1 to Care 10 of 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 ten care based questions was yes except 1 and 2. All the responses indicated a positive attitude

in favour of good pharmaceutical care. The responses for Care1, 2 and 8 were statistically significant. These showed that all strongly believed that the pharmaceutical care is not a medication counselling service alone. The pharmacist is not playing secondary role in the pharmaceutical care process. The pharmacist is willing to provide more pharmaceutical care but the basic working conditions are not found adequate for providing Pharmaceutical Care.

Table-2.1. Pharmaceutical Care based on Gender

Question Code	Responses	Male		Female		p-value
		N	%	N	%	
CARE1	Yes	5	2	9	1	0.012
	No	218	98	605	98	
	Not Specific	0	0	1	0	
CARE2	Yes	8	4	18	3	0.01
	No	215	96	586	95	
	Not Specific	0	0	11	2	
CARE3	Yes	206	92	587	95	0.134
	No	5	2	5	1	
	Not Specific	12	5	23	4	
CARE4	Yes	212	95	605	98	0.224
	No	7	3	9	1	
	Not Specific	4	2	1	1	
CARE5	Yes	210	94	579	94	0.994
	No	11	5	30	5	
	Not Specific	2	1	6	1	
CARE6	Yes	207	93	567	92	0.885
	No	3	1	7	1	
	Not Specific	13	6	41	7	
CARE7	Yes	223	100	607	99	0.231
	No	0	0	7	1	
	Not Specific	0	0	1	0	
CARE8	Yes	213	96	588	96	0.001
	No	10	4	16	3	
	Not Specific	0	0	11	2	
CARE9	Yes	206	92	587	95	0.134
	No	5	2	5	1	
	Not Specific	12	5	23	4	
CARE10	Yes	213	95	601	95	0.224
	No	6	3	9	4	
	Not Specific	4	2	5	1	
Total		223		615		

2.2 Pharmaceutical Care based on Age Group.

Pharmaceutical care based on age group was assessed using questions Care1 to Care 10 of the 838 participating Pharmacists. The results were tabulated in Table-2.2. All participants expressed positive responses on all questions except Care 1 where the answers were negative. But all the positive as well as negative responses favored good pharmaceutical care. Similar response was observed in case of participants belonging to other age groups also. The responses for pharmaceutical care offered a feedback to optimize drug use (Care 4) and the pharmacist

willingness to provide more pharmaceutical care but the basic working conditions found not adequate (Care 8) were statistically significant in all the age group.

Table–2.2. Pharmaceutical Care 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	%	
CARE1	Yes	3	2	4	1	0	0	3	2	0	0	0.205
	No	128	95	322	95	99	99	148	91	96	94	
	Not Specific	4	3	13	4	1	1	11	7	6	6	
CARE2	Yes	2	1	5	1	0	0	0	0	2	2	0.5
	No	132	98	331	98	100	100	159	98	98	96	
	Not Specific	1	1	3	1	0	0	3	2	2	2	
CARE3	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	
CARE4	Yes	114	84	311	92	96	96	152	94	99	97	0.004
	No	18	13	27	8	3	3	6	4	3	3	
	Not Specific	3	2	1	0	1	1	4	2	0	0	
CARE5	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	
CARE6	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	
CARE7	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	
CARE8	Yes	112	83	301	89	91	91	149	92	98	96	0.011
	No	18	13	37	11	8	8	9	6	4	4	
	Not Specific	5	4	1	0	1	1	4	2	0	0	
CARE9	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	
CARE10	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 Pharmaceutical Care based on Qualification.

Pharmaceutical care based on qualifications was assessed using questions Care1 to Care 10 of the 838 participating Pharmacists. The results were tabulated in Table –2.3.

All participants expressed positive responses on all questions except Care 1 where the answers were negative irrespective of their qualifications. But all the positive as well as negative responses favored good pharmaceutical care. The responses for pharmaceutical care offers a feedback to optimize drug use (Care4) and the pharmacist is willing to provide more pharmaceutical are but the basic working conditions are not found adequate (Care8) were statistically significant in all qualifications. But these differences were not statistically significant.

Table–2.3. Pharmaceutical Care based on Qualification

Question Code	Responses	D. Pharm		B. Pharm		M. Pharm		p-value
		N	%	N	%	N	%	
CARE1	Yes	48	8	20	9	3	10	0.91

	No	524	90	204	90	28	90	
	Not Specific	9	2	2	1	0	0	
CARE2	Yes	8	1	2	1	0	0	0.738
	No	546	94	217	96	31	100	
	Not Specific	27	5	7	3	0	0	
CARE3	Yes	568	98	222	98	30	97	0.922
	No	6	1	2	1	1	3	
	Not Specific	7	1	2	1	0	0	
CARE4	Yes	576	99	224	99	31	100	0.719
	No	5	1	1	0	0	0	
	Not Specific	0	0	1	0	0	0	
CARE5	Yes	552	95	210	93	28	90	0.77
	No	25	4	14	6	2	6	
	Not Specific	5	1	2	1	1	3	
CARE6	Yes	536	92	209	92	30	97	0.815
	No	9	2	1	0	0	0	
	Not Specific	36	6	16	7	1	3	
CARE7	Yes	575	99	224	99	31	100	0.719
	No	6	1	1	0	0	0	
	Not Specific	0	0	1	0	0	0	
CARE8	Yes	523	90	200	88	28	90	0.91
	No	49	8	24	11	3	10	
	Not Specific	9	2	2	1	0	0	
CARE9	Yes	545	94	217	96	31	100	0.738
	No	8	1	2	1	0	0	
	Not Specific	28	5	7	3	0	0	
CARE10	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 Pharmaceutical Care based on Area of Work.

Pharmaceutical care based on area of work was assessed by using questions Care1 to Care 10 of the participating Pharmacists were tabulated in Table -2.4.

The responses for all ten care based questions was yes except 1. All the responses indicated a positive attitude in favour of good pharmaceutical care. The responses for Care2 and 8 were statistically significant. These showed that all strongly believed that the pharmacist is not playing secondary role in the pharmaceutical care process (Care2) and the pharmacist is willing to provide more pharmaceutical care but the basic working conditions are not found adequate (Care8).

Table-2.4. Pharmaceutical Care based on Area of Work

Question Code	Responses	Community Pharmacy		Hospital Pharmacy		PHC		p-value
		N	%	N	%	N	%	
CARE1	Yes	4	1	5	2	0	0	0.75
	No	457	98	302	97	61	98	
	Not Specific	5	1	3	1	1	2	
CARE2	Yes	41	9	23	7	6	10	0.03
	No	423	91	279	90	55	89	
	Not Specific	2	0	8	3	1	2	
CARE3	Yes	442	95	291	94	60	97	0.65
	No	7	2	3	1	0	0	
	Not Specific	17	4	16	5	2	3	

CARE4	Yes	462	99	306	99	62	100	0.68
	No	4	1	3	1	0	0	
	Not Specific	0	0	1	0	0	0	
CARE5	Yes	440	94	287	93	62	100	0.22
	No	21	5	20	6	0	0	
	Not Specific	5	1	3	1	0	0	
CARE6	Yes	429	92	287	93	58	94	0.81
	No	5	1	5	2	0	0	
	Not Specific	32	7	18	6	4	6	
CARE7	Yes	462	99	306	99	62	100	0.68
	No	4	1	3	1	0	0	
	Not Specific	0	0	1	0	0	0	
CARE8	Yes	424	91	279	90	55	89	0.04
	No	40	9	23	7	6	10	
	Not Specific	2	0	8	3	1	2	
CARE9	Yes	442	95	291	94	60	97	0.65
	No	7	2	3	1	0	0	
	Not Specific	17	4	16	5	2	3	
CARE10	Yes	457	98	302	97	61	98	0.75
	No	4	1	5	2	0	0	
	Not Specific	5	1	3	1	1	2	
Total		466		310		62		

2.5 Pharmaceutical Care based on Experiences.

Pharmaceutical care was assessed based on experiences by using questions Care1 to Care 10 for the 838 participating Pharmacists were tabulated in Table –2.5.

Among 337 participants who were working for less than one year, all expressed positive responses on all questions except Care 1 where the answers were negative. But all the positive as well as negative responses favored good pharmaceutical care. Similar response was observed in case of 276 participants who were working for two to five years and 225 pharmacists who were working more than five years. Statistical significance was observed in the responses for Care 2, Care 4, Care 8 and Care 9.

Table–2.5. Pharmaceutical Care based on Experience

Question Code	Responses	Less than one year		Two to five years		More than five years		p-value
		N	%	N	%	N	%	
CARE1	Yes	4	1	1	0	2	1	0.51
	No	333	99	274	99	223	99	
	Not Specific	0	0	1	0	0	0	
CARE2	Yes	42	12	23	8	11	5	0.04
	No	290	86	250	91	211	94	
	Not Specific	5	1	3	1	3	1	
CARE3	Yes	321	95	263	95	209	93	0.27
	No	6	2	2	1	2	1	
	Not Specific	10	3	11	4	14	6	
CARE4	Yes	329	98	271	98	220	98	0.05
	No	7	2	0	0	2	1	
	Not Specific	1	0	5	2	3	1	
CARE5	Yes	333	99	274	99	223	99	0.51

	No	4	1	1	0	2	1	
	Not Specific	0	0	1	0	0	0	
CARE6	Yes	270	80	230	83	190	84	0.32
	No	42	12	23	8	11	5	
	Not Specific	25	7	23	8	24	11	
CARE7	Yes	321	95	263	95	209	93	0.27
	No	6	2	2	1	2	1	
	Not Specific	10	3	11	4	14	6	
CARE8	Yes	330	98	271	98	221	98	0.05
	No	6	2	0	0	1	0	
	Not Specific	1	0	5	2	3	1	
CARE9	Yes	309	92	264	96	216	96	0.09
	No	23	7	9	3	9	4	
	Not Specific	5	1	3	1	0	0	
CARE10	Yes	307	91	259	94	208	92	0.63
	No	4	1	4	1	2	1	
	Not Specific	26	8	13	5	15	7	
Total		337		276		225		

2.6 Pharmaceutical Care based on Working hours.

Pharmaceutical care was assessed by on questions Care1 to Care 10 based on working hours of the 838 participating Pharmacists were tabulated in Table –2.6

Among 343 participants who were working for less than 8 hours, all expressed positive responses on all questions except Care 1 and Care 2 where the answers were negative. But all the positive as well as negative responses favored good pharmaceutical care. Similar response was observed in case of 495 participants who were working for more than 8 hours. Statistical significance was observed in the responses for Care 1, Care 2 and Care 8.

Table–2.6 Pharmaceutical Care based on Working hours.

Question Code	Responses	Less than 8 hours		More than 8 hours		p-value
		N	%	N	%	
CARE1	Yes	42	12	63	13	0.012
	No	272	79	405	82	
	Not Specific	29	8	27	5	
CARE2	Yes	60	17	152	31	0.002
	No	269	78	326	66	
	Not Specific	14	4	17	3	
CARE3	Yes	328	96	476	96	0.975
	No	2	1	1	0	
	Not Specific	13	4	18	4	
CARE4	Yes	292	85	452	91	0.149
	No	7	2	5	1	
	Not Specific	44	13	38	8	
CARE5	Yes	323	94	465	94	0.68
	No	9	3	16	3	
	Not Specific	11	3	14	3	
CARE6	Yes	276	80	413	83	0.704
	No	57	17	66	13	

	Not Specific	10	3	16	3	
CARE7	Yes	313	91	450	91	0.98
	No	16	5	21	4	
	Not Specific	14	4	24	5	
CARE8	Yes	298	87	447	90	0.04
	No	30	9	43	9	
	Not Specific	15	4	5	1	
CARE9	Yes	316	92	463	94	0.969
	No	5	1	6	1	
	Not Specific	22	6	26	5	
CARE10	Yes	336	98	486	98	0.859
	No	2	1	6	1	
	Not Specific	5	1	3	1	
Total		343		495		

2.7 Pharmaceutical Care based on number of Pharmacist.

The pharmaceutical care was assessed on questions CARE1 to CARE 10 was evaluated based on number of pharmacists among 838 participating pharmacists were tabulated in Table -2.7 Among 444 participants who were working in pharmacies alone or along with another pharmacist, all expressed Good responses on all questions except Care 1, Care 4, Care 5, Care 6, Care 9 where the responses were negative. 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. Statistically significant difference was observed between the categories for the response to Care 1, Care 3, Care 6 and Care 8.

Table-2.7. Pharmaceutical Care 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	%	
CARE1	Yes	409	92	221	94	144	90	0.05
	No	3	1	2	1	5	3	
	Not Specific	32	7	11	5	11	7	
CARE2	Yes	3	1	0	0	4	3	0.04
	No	441	99	233	100	156	98	
	Not Specific	0	0	1	0	0	0	
CARE3	Yes	396	89	213	91	142	89	0.87
	No	43	10	18	8	15	9	
	Not Specific	5	1	3	1	3	2	
CARE4	Yes	422	95	226	97	145	91	0.13
	No	5	1	2	1	3	2	
	Not Specific	17	4	6	3	12	8	
CARE5	Yes	422	95	221	94	146	91	0.3
	No	18	4	10	4	13	8	
	Not Specific	4	1	3	1	1	1	
CARE6	Yes	419	94	226	97	150	94	0.05
	No	3	1	2	1	5	3	
	Not Specific	22	5	6	3	5	3	
CARE7	Yes	441	99	233	100	156	98	0.04
	No	3	1	0	0	4	3	
	Not Specific	0	0	1	0	0	0	
CARE8	Yes	396	89	213	91	142	89	0.87
	No	43	10	18	8	15	9	
	Not Specific	5	1	3	1	3	2	

CARE9	Yes	422	95	226	97	145	91	0.13
	No	5	1	2	1	3	2	
	Not Specific	17	4	6	3	12	8	
CARE10	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 Pharmaceutical Care Based on Geographic Region.

The pharmaceutical care was assessed on questions CARE1 to CARE 10 was evaluated based on geographic region of the pharmacy. Among 838 participating pharmacists were tabulated in Table -2.8.

Among 471 participants who were working in pharmacies established in Rural areas, all expressed Good responses on all questions except Care 1, Care 4, Care 5, Care 6, and Care 9 where the responses were negative. Similar response was observed in case of 367 participants who were working in Urban Areas. Statistically significant difference was observed between the categories for the response to Care 1, Care 3, Care 6 and Care 8.

Table-2.8 Pharmaceutical Care Based on Geographic Region

Question Code	Responses	Rural		Urban		p-value
		N	%	N	%	
CARE1	Yes	4	1	12	3	0.75
	No	462	98	352	96	
	Not Specific	5	1	3	1	
CARE2	Yes	228	48	23	6	0.83
	No	241	52	286	78	
	Not Specific	2	0	8	2	
CARE3	Yes	447	95	341	93	0.65
	No	7	1	3	1	
	Not Specific	17	4	23	6	
CARE4	Yes	467	99	363	99	0.68
	No	4	1	3	1	
	Not Specific	0	0	1	0	
CARE5	Yes	445	94	344	94	0.22
	No	21	4	20	5	
	Not Specific	5	1	3	1	
CARE6	Yes	434	92	337	92	0.81
	No	5	1	12	3	
	Not Specific	32	7	18	5	
CARE7	Yes	467	99	363	99	0.68
	No	4	1	3	1	
	Not Specific	0	0	1	0	
CARE8	Yes	459	97	336	92	0.04
	No	10	2	23	6	
	Not Specific	2	0	8	2	
CARE9	Yes	447	95	348	95	0.65
	No	7	1	3	1	
	Not Specific	1	0	16	4	
CARE10	Yes	262	56	359	98	0.75
	No	204	43	5	1	
	Not Specific	5	1	3	1	
Total		471		367		

CONCLUSION

This was studied by using a validated questionnaire among pharmacists working at Community Pharmacy, Private Hospitals and Government health Centres. The evaluation were made based on Gender, Age, Qualifications, Experience, Number of hours working and Number of pharmacists working in the same pharmacy and Geographic area. In most of the cases positive response was recorded in majority of the pharmacists. Poor response was observed in pharmaceutical care which was considered as just as a medication counseling service and the role of pharmacists was considered as secondary. Most of them said that the primary aim of pharmaceutical care is to ensure the safety, efficacy, economy and rational use of medicines. It was reported that the pharmaceutical care provided feedback to optimize drug use. Most of them accepted that providing pharmaceutical care offered job satisfaction. Many said that they considered the economic situation which adversely affect the therapeutic outcome. It was believed that most patients were expecting pharmacists to provide better pharmaceutical care. But pharmacists said that they were ready to provide pharmaceutical care but the main barrier was lacking basic working conditions. Still, they agreed that they can provide more comprehensive pharmaceutical care than what was currently providing. Majority of them agreed that continuing professional development program is necessary for pharmacists to practice better pharmaceutical care. It was surprised to see that the responses did not vary on parameters including qualifications

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