

Attitude and Practices of Community, Government and Corporate Sector Pharmacists towards Pharmaceutical Care in Maharashtra

Sunita Pawar*, Atmaram Pawar

Department of Clinical Pharmacy, Poona College of Pharmacy, Bharati Vidyapeeth University, Pune, Maharashtra, INDIA.

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*Correspondence to:

Ms. Sunita Pawar M. Pharm,
Assistant Professor, Department of Clinical
Pharmacy, Poona College of Pharmacy, Bharati
Vidyapeeth University, Pune, Maharashtra,
INDIA.

Email: sunita.reva@gmail.com

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Abstract

Background: Pharmacist can directly influence disease management by providing community based Pharmaceutical Care services. Pharmacists must evolve from dispensers to medication management practitioners. Therefore their knowledge, attitude and practices are the key necessities, so that they can work along with physicians to significantly improve the health of the patients. **Objective:** To assess the Attitude and Practices of Pharmacists regarding Pharmaceutical Care. **Methods:** This prospective study administered validated Attitude and Practices questionnaire on a sample of 508 pharmacists belonging to government, community and corporate sectors of Pune district in India. The level of attitude and practices towards pharmaceutical care were assessed with simple descriptive analysis and the outcomes from focused group discussion with higher officials from all three sectors. **Results:** The responses of all participants were significantly low across all components of Pharmaceutical care practices including patient counseling, solving drug related problems, doing interventions, ADR management and informing drug interactions, whereas the attitude to provide these services was found to be very high. From Focused group discussion with officials, it was confirmed that Pharmacists did not practice much patient care services due to barriers like lack of proper education and training of pharmacists, weak implementation of existing laws, inadequate clinical knowledge and lack of recognition of the pharmacy profession by other healthcare professionals. **Conclusion:** The study concluded that in India, dispensing of medicines still remains as a dominant service provide by all pharmacists and there is very limited practice of Pharmaceutical Care in spite of positive attitude of pharmacists towards it.

Key words: Pharmacists, Attitude and practice, Pharmaceutical care, India.

INTRODUCTION

Times have changed and so has the role of a pharmacist. Earlier it was just running the apothecary, compounding and dispensing medicines. In past few decades it has become multifaceted. Being part of the healthcare service; a Pharmacist's duties include patient counselling, prescription error corrections, ADR reporting, providing medication information and other drug related interventions. For a pharmacist to conduct Pharmaceutical care (PC) services he must have up-to-date and accurate knowledge.^[1]

Based on a WHO report on Challenges and Opportunities for Pharmacists in India and despite huge Government spending on drugs, healthcare services are not as adequate. Most pharmacists have a very basic qualification of diploma in pharmacy (D.Pharm) and they practice as mere storekeepers. There are no professional trainings provided to these pharmacists.^[2]

For successful implementation of programs promoting pharmaceutical care, the pharmacists' philosophy of practice is very crucial. Other researches indicate that many pharmacists are confused about the new practice standards. They are not able to appreciate that PC services have good impact on therapeutic outcomes and that it is 'their' responsibility to provide such services to patients.^[3] Though many pharmacists claim that they provide PC services, many evidences indicate that what they are actually doing is limited to merely giving information to patients on when and how to take medications prescribed.^[4]

In India too, as professional and educational standards improve, pharmacists' role in patient care is expected to grow. Lack of proper education and training of pharmacists, weak implementation of existing laws, inadequate clinical knowledge and lack of recognition of the pharmacy as a distinct yet integral part of healthcare profession by other healthcare professionals, have been identified as main barriers to the provision of PC.^[5] Pharmacist can directly influence disease management by providing community based PC.^[6] Pharmacists must evolve from dispensers to medication management practitioners. Therefore their knowledge, attitude and practices are the key necessities, so that they can work along with physicians to significantly improve the health of the patients.

The main objective of this study was to assess and compare the attitude and pharmaceutical care practices amongst pharmacists from major sectors namely: community, government and corporate sectors in Pune district of Maharashtra, India.

METHODS

This prospective qualitative study was designed to assess the attitude and practices of Pharmacists towards PC services in their respective settings. The study was conducted in Pune district of Maharashtra, India, over a period of one year. Approval of Ethics Committee and permission from higher authorities of participating pharmacists was taken. The practicing pharmacists from three different settings namely community, corporate and government sector were recruited in the study. All pharmacists were

registered with pharmacy council and on invitation, they volunteered to participate in this study. A focused group discussion (FGD) with the higher authorities of each sector was conducted to understand their opinion and policy with regards to PC practices by their Pharmacists in their respective sectors. The outcome of FGD was noted by the study team in the form of structured notes.

A questionnaire was designed based on the objectives of the study and the perspective of the respondents. A 10 items' questionnaire comprising of 5 questions assessing "Attitude" component and another 5 questions to assess "Practice" component with respect to PC, was designed and developed. The questionnaire constituted a combination of both close and open ended questions. Reference for components used were from similar published studies and literatures. Questionnaire was customized to suit local requirements. The content validation was done by senior professors of pharmacy practice department and community experts. The questionnaire also included opening questions to capture demographic details such as name, age, gender, educational background and practice experience of the respondents. Questionnaire components are given in Table 1.

The attitude and practices of the participating pharmacists were assessed by applying the questionnaire, scoring the expected responses and assessing the results descriptively in Microsoft Excel.

RESULTS

Out of 530 pharmacists identified for enrollment, 508 were as per inclusion criteria and were enrolled in the study. Of these: 158 were from Government sector, 200 from Community and 150 were from Corporate sector. 408 participants (80.31%) were males and 100 participant (19.68%) were female. Majority (66.92%) belonged to age group of 20-35 years and 19.29% participants were in age group of 36-45years. Mean age was $29.1643 \pm 7.7534y$. Most participants (78.93%) were Diploma in Pharmacy (D. Pharm); and 19.09 % were Bachelor in Pharmacy (B. Pharm). Practice experience of 55.70 % participants was more than 5 years. Mean practice experience was $23.216y \pm 8.824y$. Participants' complete Demographic details are presented in Table 1.

| Characteristics | N | % | Mean |
|-----------------------------------------|-----|-------|----------------------|
| Gender | | | |
| Male | 408 | 80.31 | |
| Female | 100 | 19.68 | |
| Age in years | | | |
| 2035 | 340 | 66.92 | |
| 3645 | 98 | 19.29 | 29.16±7.75y |
| 4655 | 57 | 11.22 | |
| >55 | 3 | 0.59 | |
| Qualification | | | |
| D. Pharm | 401 | 78.93 | |
| B. Pharm | 97 | 19.09 | |
| M. Pharm | 10 | 1.90 | |
| Practice experience in years | | | |
| <5 | 283 | 55.70 | |
| 610 | 88 | 17.32 | |
| 1115 | 78 | 15.35 | 23.21y ±8.82y |
| >15 | 59 | 11.61 | |
| Participants' Practicing Sectors | | | |
| Government | 158 | 31.10 | |
| Community | 200 | 39.37 | |
| Corporate | 150 | 29.52 | |

One observation was that corporate sector pharmacists in the private setting had relatively younger population than those in other settings Most Government pharmacists were of older age group and had more years of experience compared to other sectors.

Total 508 pharmacists responded to the questionnaire. The attitude component towards all the domains related to PC practices and the responsibilities of Pharmacists was assessed with 5 questions. In the attitude component, maximum correct responses were received to Q1 (70.25 %) and Q2 (43.67%) towards providing PC services and responsibility of pharmacists to identify and report ADRs respectively. For Q3 and Q4, maximum correct responses were obtained from corporate sector pharmacists related to participation of pharmacists in drug related interventions and responsibility towards patient outcomes. For Q5 related to current low status of pharmaceutical care provision by pharmacists in India, all the sectors had perceived it equally and had responded correctly to Q5. The responses of community pharmacists towards all the aspects of PC provision were found to be quite low.

Practices of pharmacists with respect to PC were assessed with 5 questions in Practice component. In Practice component: for Q1 related to role of pharmacists in solving drug interactions, only government sector pharmacists responded, however the response score was very low 7.5%. For Q2 (prescription corrections), Q3 (patient history taking), Q4 (counseling details) and Q5 (drug problem related interventions done), better scores were observed from corporate sector pharmacists compared to government and community sector, but the scoring across all the questions was less than 50% and not satisfactory.

Overall evaluation confirmed that participants from none of the sector had scored satisfactorily in Practice component, confirming very low level of PC practices in use by all pharmacists irrespective of their practice settings. These observations are shown in Table 2.

In FGDs with higher authorities of each sectors, the outcomes were as follows:

- The officials conveyed that pharmacists were mainly involved in dispensing practices, inventory management, drug supply, purchases and records and report maintenance in all the settings. The govt. set up pharmacists had additional load of making the case papers of the patients and taking care of payments and bills as well.
- They also informed that not much patient care services are carried out by pharmacists in terms of prescription audit, drug information or patient counselling.
- The various barriers quoted by the officials were that there was lack of manpower at the pharmacy outlet, too much patient work load was handled by pharmacists and so pharmacists never had any time to give patient care services.
- They also stressed that patients themselves were not interested to seek or spend time for such services like drug information or counselling.
- The higher authorities of all three settings conveyed that pharmacists did not have sufficient clinical knowledge to provide pharmaceutical care services. Also they stated that, since most pharmacists were Diploma holders, they were not competent enough to provide professional or clinical services to patient due to lack of in depth knowledge.

Table 2: Attitude and Practices Evaluation among participants.

| | Community Sector N=200 (%) | Government Sector N =158 (%) | Corporate Sector N =150 (%) |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------|--------------------------------|
| Questionnaire about Attitudes of participants | | | |
| Q1: Professional services like drug information and patient counseling are pharmacist's responsibilities. | 93 (46.5) | 111(70.25) | 100(66.66) |
| Q2: Pharmacists should identify and report the adverse drug reactions. | 47 (23.5) | 69(43.67) | 57(38) |
| Q3: Pharmacists can help patients through interventions related to drug problems. | 67(33.5) | 48(30.37) | 112(74.66) |
| Q4: Pharmacist can contribute in positive health outcomes of patients through pharmaceutical care. | 88 (44) | 99(62.65) | 122(81.33) |
| Q5: Current patient care services provided by pharmacists in India are not satisfactory. | 147(73.5) | 122(77.21) | 133(88.65) |
| Questionnaire about practice of participants | | | |
| Q1: How do you handle any dangerous drug interaction observed in a patient's prescription? | 00(nil) | 12(7.5) | 00(nil) |
| Q2: How many prescription corrections you recommend for the patients in month. | 47(23.5) | 00(nil) | 59(39.33) |
| Q3: Do you ask the female patients if they are pregnant or breast feeding before, dispensing the medicines to them? | 22(11) | 35(17.5) | 53(35.33) |
| Q4: How many times do you counsel and what do you counsel the patients about medicines? | 67(33.5) | 54(34.17) | 70(46.66) |
| Q.5: What types of drug related problems of a patient have you solved till now? | 56(28) | 12(7.5) | 67(44.66) |

- The Pharmacist association members of community conveyed that there were already conducting patient counselling training courses available from Maharashtra State Pharmacy Council, but most of the pharmacists were reluctant to participate, since they felt that while attending the course there will be losses on their sale and business during their absence.
- The corporate sector officials conveyed that though they had a very well structured training policy in place for Pharmacists but it was mainly oriented towards sales and marketing of the product. The clinical trainings were limited to only an overview of various critical non-communicable diseases like Diabetes, Hypertension and asthma but did not include much PC related services.
- In summary, the outcome of the FGD confirmed that Dispensing was still the dominant practice of all the Pharmacists with very little Pharmaceutical care service practices in current scenario.

DISCUSSION

This study was carried out to assess the attitude and practices of pharmacists towards PC services. According to the principal for all healthcare professionals including Pharmacists, it is necessary to have knowledge and attitude to practice their profession effectively.

In current study it was observed that the attitude of all participants towards PC was good. All pharmacists were keen to provide patient counseling and felt responsible towards drug safety issues, but showed reservations over their responsibility towards clinical outcome of the patient and active participation in drug related interventions. All of them felt very strongly that the current practices of PC by pharmacists is very low in India. This may be due to lack of clinical knowledge hence low confidence levels and insufficient skills. Also, they felt that clinicians were entirely responsible for clinical outcomes of the patients and not the pharmacists. These findings are comparable with a study by Oparah, *et al.* in which 75% of a sample of 1500 Nigerian pharmacists had positive attitude towards PC and were also enthusiastic to put PC into practice. But they too expressed serious concerns regarding their knowledge and professional skills.^[7] These findings were in contrast with a study carried out in Moldova, in which the Pharmacists appeared to be deeply involved in traditional Practices of dispensing only and were reluctant to practice PC.^[8] The attitude ratings vary with the levels of professional experience, with pharmacists having less experience showing more positive attitude.

The responses of all the participants were significantly low in all key aspects of PC practices including patient counseling, solving drug related problems, doing interventions, ADR management and informing drug interactions. In a similar review study by Alanazi AS in KSA, it was found that dispensing of medicines is the dominant service provided by community pharmacists with very limited scope for PC services.^[9] Findings were also in line with another study by Toklu, *et al.* in which the community pharmacists did not provide warning of possible drug interactions and related information to the patients.^[10] In another study by Lao, pharmacists' poor practice became evident by the lack of drug information given to any of the patients.^[11] A systematic review by Basak *et al.* also concluded that the healthcare services in community pharmacies in India was insignificant and must undergo reforms to meet the changing needs of modern medicine users. The provision of PC services in the community pharmacies is not common in India and is limited only to a few chain pharmacies of corporate sector wherein the top management mandate such patient care services. Lack of knowledge about PC and inadequate quality trainings in this area have been the biggest barriers for not providing such specialized services to the patient community.^[5] This revealed an existing mismatch between the pharmacy curriculum, training in India and the expected global practice standards. A study conducted among Eritrean pharmacists also indicated that nearly 86% of participants felt that such mismatch and wanted to redefine the current roles and responsibilities towards pharmaceutical care.^[12] Another study conducted in UAE had reported that lack of motivation accounted as a barrier for providing pharmaceutical care services in the community pharmacy.^[13] A study conducted at Jordan reported lack of training on pharmaceutical care as the top barrier for the provision of pharmaceutical care.^[14]

The findings clearly emphasize the need of motivation pharmacists towards PC. Training along with other administrative incentives and regulatory mandates can lead to the expected level of Practices, implying the need to ensure provision of PC services. The findings can serve as a reference for the future planning, design and improvement in Continuing Education and mandatory quality trainings to pharmacists from all sectors in India.

CONCLUSION

The study concludes that dispensing of medicines is still the dominant service provided by all practicing pharmacists in India and that negligible pharmaceutical care services are being provided though Pharmacists have good attitude towards PC. Continuing Education should be implemented and effective training modules may be prepared and used for career-long learning and professional development.

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CONFLICT OF INTEREST

None.

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None

ABBREVIATIONS

PC: Pharmaceutical Care; **WHO:** World Health Organization); **FGD:** Focused Group Discussion; **Q:** Question; **ADR:** Adverse Drug Reaction; **UAE:** United Arab Emirate.

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