



(RESEARCH ARTICLE)



## Assessment of knowledge, attitude, perception towards pharmacy practice regulations 2015 among community pharmacists in Mangalore

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### Abstract

The Pharmacy Practice Regulations of 2015 were formulated to standardize and enhance pharmacy practices in India. Community pharmacy professionals globally are taking on expanded roles in patient care and health promotion. However, some lack awareness of recommended pharmaceutical care services in new regulations. This knowledge gap poses risks of medication errors and serious consequences, even patient fatalities. To address this, it's crucial to provide ongoing education, enhance communication, integrate technology, ensure regulatory compliance, and establish effective feedback mechanisms within pharmacies. These measures aim to improve knowledge, compliance, and, ultimately, patient safety. This study, conducted in Mangalore over a period of approximately 2.5 months, is a community-based cross-sectional study with a sample size of 100 participants. It included community pharmacists working in Mangalore. Knowledge of community pharmacists were analysed and it was found that out of 100 participants only 18% were aware, 60% were not aware and 22% were not sure about the PPR,2015. In this study, 42% of participants were not aware of the duties outlined in PPR,2015. Among the surveyed pharmacists, 55% believed that adhering to Pharmacy Practice Regulations was essential for improving patient healthcare. In contrast, 20% held the opinion that following these regulations was unnecessary, while 28% expressed uncertainty on the matter. Mandating minimum education level for working in community pharmacies should be implemented. Practicing pharmacists should be encouraged to update their knowledge by attending continuous education programmes. The morals and responsibilities of community pharmacists should be continuously reminded to the pharmacists.

**Keywords:** PPR 2015; Continuing Pharmacy education; Pharmaceutical care; Pharmacy regulations; Pharmacist responsibilities

### 1. Introduction

A community pharmacist, as defined by the Pharmacy Council of India, is an individual currently registered, working within legal and ethical guidelines. They ensure the safe supply of medical products to the general public, contributing to health maintenance and improvement by providing advice, information, and supplying prescription medicines [1]. Community pharmacists play a crucial role as a vital bridge between physicians and patients, ensuring optimal and rational medication use. They provide a diverse array of services, encompassing drug procurement, patient counselling, health promotion, and dispensing valuable drug information [2].

The duty of a pharmacist in timely intervention and revelation for the benefit of patients is significant. The PPR, 2015 were formulated to standardize and enhance pharmacy practices in India [3]. Community pharmacist must be able to identify unnecessary drugs, high doses, potentially dangerous combinations and bring the draw attention to the same matter to the prescriber for required corrections for the optimal advantage of the patients. Community pharmacist must

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make sure that all medicines and other items are stored properly and scientifically in the pharmacy as the pharmacological activity, clinical safety and physical as well as chemical stability of a drug formulation is largely dependent upon its storage [4]. WHO (World Health Organization) has contributed effectively towards encouraging and defending the role of pharmacists worldwide. The International Pharmaceutical Federation (FIP) and WHO developed "The seven-star pharmacist" concept, emphasizing a pharmacist's role as a compassionate caregiver, decision maker, active communicator, lifelong learner, good manager, leader, teacher [5]. According to Pharmacy Practice Regulations - 2015 by Pharmacy Council of India the duties of community pharmacist includes;

- Administering prescription medications to the public.
- Verifying the compatibility of various treatments.
- Verifying dosages and ensuring the correct and safe supply and labeling of medications (pharmacists bear legal responsibility for any dispensing errors).
- Supervising the preparation of medications, especially those not supplied ready for cross-checking by the manufacturer.
- Maintaining a register of controlled drugs for legal and inventory control purposes, and collaborating with physicians regarding prescriptions.
- Selling over-the-counter medications.
- Counseling and advising the public on the management of minor ailments, as well as informing patients of any potential adverse side effects or interactions with other medications/treatments.
- Preparing dosette and cassette boxes, primarily for the elderly or individuals with memory/learning difficulties, where tablets are organized into compartments for specific days of the week.
- Providing prescription intervention services.
- Managing a needle and syringe exchange program.
- Dispensing emergency hormonal contraception.
- Measuring and fitting compression hosiery.
- Monitoring blood pressure and cholesterol levels.
- Offering diabetes screening services.
- Providing pregnancy testing.
- Coordinating the delivery of prescription medications to patients.
- Supervising the ordering and safe storage of medical products.
- Maintaining computerized records.
- Managing, supervising, and training pharmacy support staff.
- Retailing healthcare and other products such as toiletries, cosmetics, and photographic items.
- Budgeting and financial management.
- Promoting sales and business development.
- Keeping abreast of current pharmacy practice, new drugs, and their applications [1].

The essential reasons which led to the framing of regulations by the Pharmacy council of India were to enhance the quality of health care, to maintain standards in pharmacist profession, to decrease healthcare expenses and to prevent misuse and abuse of drugs [3]. Failure to comply with pharmacy practice regulations, 2015 can result in severe consequences for community pharmacist. Failure to comply with pharmacy practice regulations, whether in 2015 or any other year, can result in severe consequences for community pharmacists. These consequences encompass legal actions, such as fines, license suspension, or revocation due to errors in dispensing, controlled substance mismanagement, and other violations. Patient safety is also at risk, as non-compliance can lead to medication errors, mislabelling, and improper medication handling, potentially resulting in patient harm, lawsuits, or disciplinary actions. Additionally, violations can harm a pharmacist's professional reputation. Medication errors resulting from community pharmacists' negligence in adhering to pharmacy practice regulations are a serious concern, as they can harm patient health and safety. In India it is estimated that deaths due to medication is around 5 lakhs annually. From the previous study it is revealed that only a part of community pharmacist is aware about the new pharmacy practice regulations 2015 and the contents of the same. Very few of the community pharmacists have knowledge about the pharmaceutical care services recommended in the new regulations. Many pharmacists show personal interest to provide pharmaceutical care services but also feel a lot of limitations including lack of knowledge, training time etc [3].

The ethical standards and duties of community pharmacists must be consistently reinforced to ensure patient well-being [6]. Given their accessibility, community pharmacists often serve as the initial point of contact for healthcare needs. It's imperative that community pharmacists actively engage in public health initiatives [7]. An essential requirement to be met is giving community pharmacy staff in-service training to offer health promotion services [8]. Patient confidence in counselling relies on the pharmacist dedicating ample time to gather information before giving advice. The public expects over-the-counter medicines to be safe and effective because community pharmacists are

involved in providing OTC medicines. Pharmacists are responsible for ensuring their competence in providing appropriate advice to the public [9]. Improved pharmacists' knowledge and attitude leads to better practice. National pharmaceutical organizations should organize educational programs for community pharmacists to promote rational drug use. Good Pharmacy Practice's global application needs enhancement, considering pharmacists' crucial role in public health and patient quality of life [10].

## 2. Materials and methods

This was a community based cross-sectional study in Mangalore which was carried out with 100 participants for 6 months. The inclusion criteria were community Pharmacists willing to participate in the study, working in pharmacies located in Mangalore, Karnataka and Clinical pharmacists, Pharmacy interns, other Health Care Professionals and pharmacists unwilling to participate in the study were excluded.

The data was collected through surveys using structured questionnaires adapted from previous studies and modified to suit our purpose. Questionnaire was prepared in English including all relevant variables based on the objectives of study. The questionnaire used have three sections designed to address; 1. Demographic details, 2. Knowledge on Pharmacy Practice Regulations 2015 and 3. Attitude, Perception and barriers in practicing the Pharmacy practice regulations 2015. Data was collected using pre-validated questionnaires through direct interaction after obtaining informed consent of the community pharmacists working in various pharmacies in Mangalore.

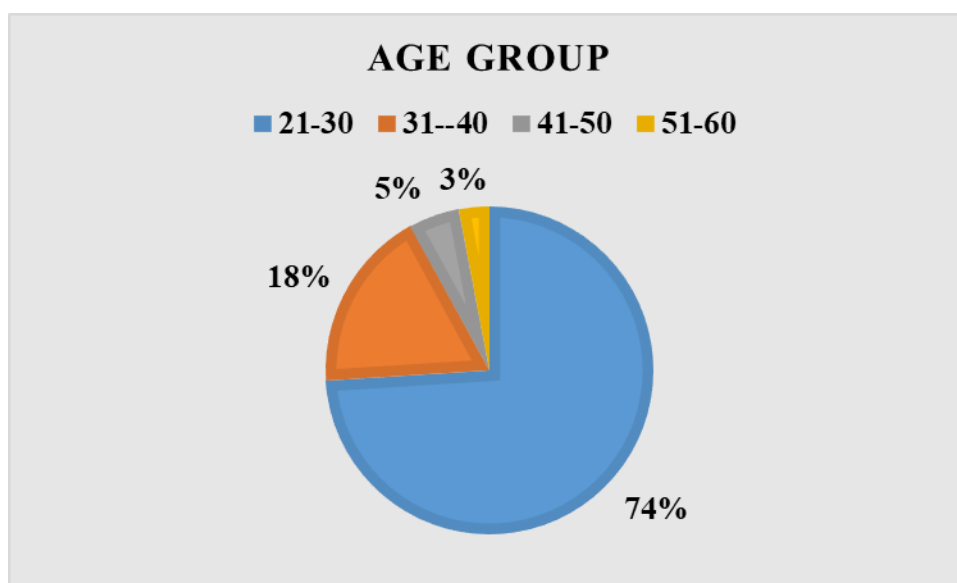
Descriptive analysis was done and data was reported as frequency, percentages, and charts. Suitable statistical tests were performed and the results were recorded. Students' 't' test, chi-square test and Pearson's co-efficient correlation test were used where applicable.

## 3. Results

### 3.1. Socio demographic characteristics of study population

Out of 100 community pharmacists participated in the study on KAP towards PPR,2015 among community pharmacists in Mangalore, it was found that 45% were male and 55% were female.

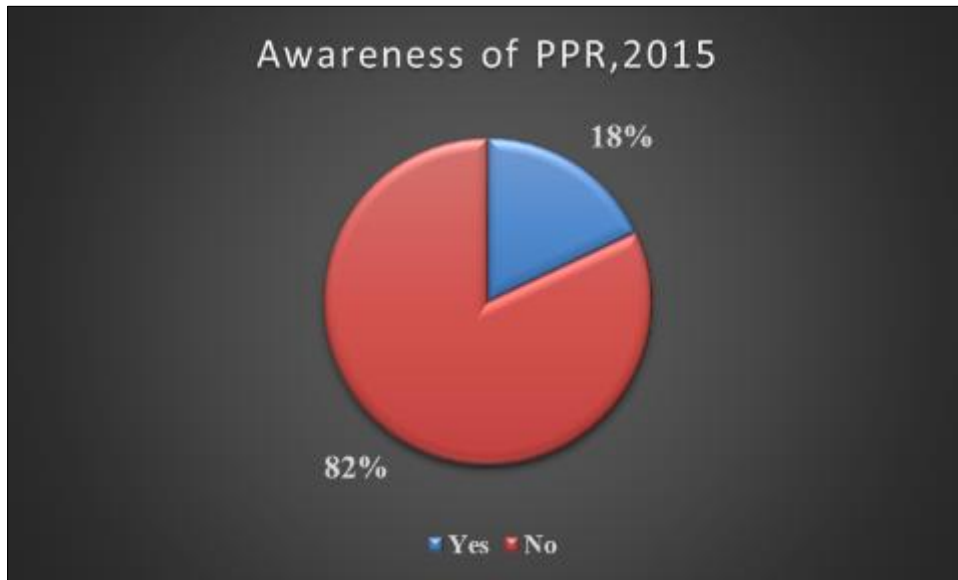
In this study, the participants' experience levels varied notably, with 10% having less than one year of experience, while the majority, constituting 90%, possessed more than one year of experience.



**Figure 1** Age group of the community pharmacists participated in the study

Furthermore, the age distribution among community pharmacists working in community pharmacies was diverse: the largest segment, accounting for 74%, fell within the 21-30 age group, 18% were in the 31-40 age range, 5% were in the 41-50 age category, and a final 3% were situated in the 51-60 age group.

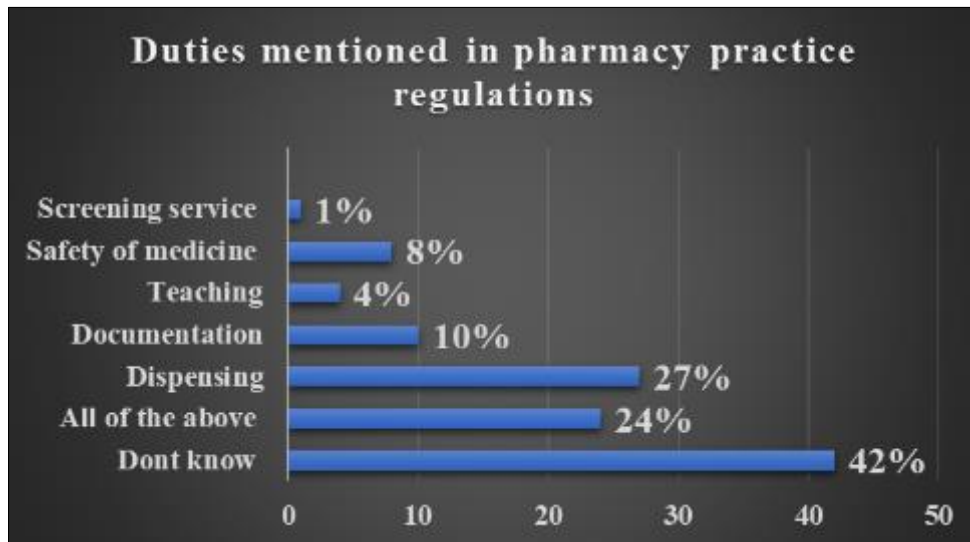
Knowledge of community pharmacists were analyzed and it was found that out of 100 participants only 18 (18%) were aware ,82% were not aware about the PPR,2015.



**Figure 2** Awareness of Pharmacy Practice Regulations, 2015

The educational backgrounds of community pharmacists were analyzed, revealing that 39 (39%) came from pharmacy background while 61% came from non-pharmacy background .Out of 39 people from pharmacy background only 4(6.55%) of the pharmacists were aware, 48 (78.6%) were not aware and 9 (14.7%) were not sure about the Pharmacy Practice Regulations,2015.Out of 61 people from non-medical background only 14 (35.8%)were aware,12 (30.7%)were not aware and 13 (30.7%) were not sure about the Pharmacy Practice Regulations, 2015.

**3.2. Knowledge assessment of community pharmacist towards PPR,2015**



**Figure 3** Duties of community pharmacist mentioned in PPR, 2015

In this study, 42% of participants were not aware of the duties outlined in PPR,2015. 27% identified dispensing as a duty, 10% chose documentation, 4% mentioned teaching, and 8% indicated safety of medicine. Only 1% recognized screening service, while 24% believed all these duties were mentioned in PPR, 2015.

**Table 1** Knowledge of PPR,2015 among community pharmacists

1. What is the minimum level of education required by community pharmacist? a. 10 <sup>th</sup> pass b. 12 <sup>th</sup> pass c. D. Pharm d. B. Pharm	3 (3%) 28 (28%) 11 (11%) 58 (58%)
2. Pharmacists awareness about registration renewal information a. Yes b. No	23 (23%) 77 (77%)
3. Characteristics pharmacist should have according to PPR 2015 a. Patience b. Secrecy c. Modesty d. Good memory e. Detail Oriented f. Don't Know	29 (29%) 19 (19%) 18 (18%) 15 (15%) 11 (11%) 27 (27%)
4. Duration of maintaining records according to PPR 2015 a. <less than one year b. 1-3 years c. 3-4 years d. ≥5 years e. Not sure	4 (4%) 30 (30%) 19 (19%) 10 (10%) 37 (37%)
5. Which of these considered as misconduct as per PPR 2015 a. Dispensing prescription-only medication without prescription b. Substitution of prescription without approval from physicians c. Allowing the owner of pharmacy to use his pharmacist registration without attending the pharmacy d. Using agents for procuring patients e. Not displaying the registration certification in the pharmacy f. Don't know	32 (32%) 16 (16%) 5 (5%) 16 (16%) 18 (18%) 31 (31%)
6. Which of these are considered as unethical as per PPR 2015? a. Advertising b. Rebates and commission c. Secret remedies d. Violation of human rights e. All of the above	12 (12%) 6 (6%) 15 (15%) 10 (10%) 59(59%)

In relation to the requirements outlined in PPR,2015, it was observed that 11% of the participants asserted that a D. Pharm qualification was the minimal requirement for community pharmacists, whereas 58% indicated a preference for B. Pharm. Additionally, 28% of the participants considered a 12th-grade qualification sufficient, and 3% believed that a 10th-grade qualification met the requirement.

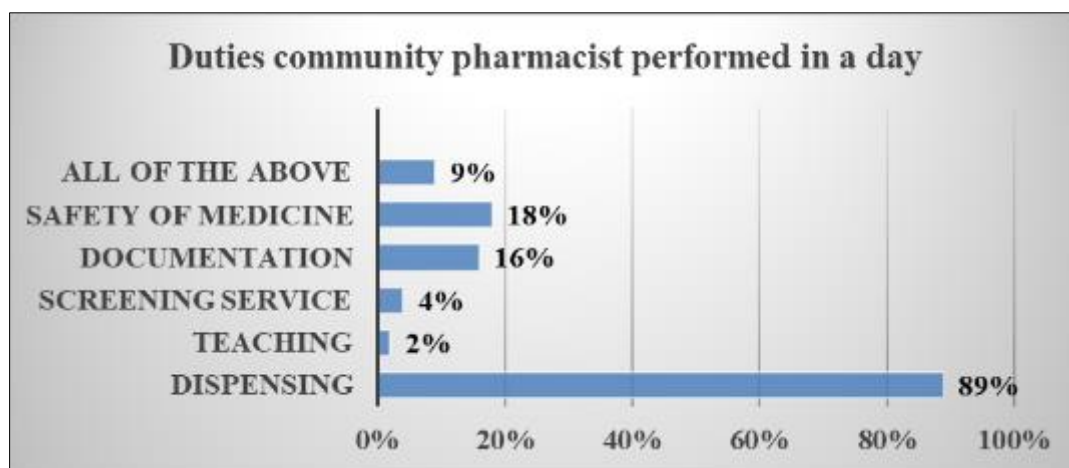
Out of 100 participants 23% of participants were aware of pharmacist's registration renewal information while 77% were not aware.

Regarding the duration of maintaining records as per PPR,2015, 30% of participants indicated 1-3 years, 10% mentioned ≥5 years, 4% stated less than one year, 19% specified 3-4 years, and 37% were uncertain about the specified record-keeping duration

Among the 100 participants, 32% identified dispensing prescription-only medication without a prescription as misconduct according to PPR,2015. Additionally, 16% perceived substituting prescriptions without physician approval as misconduct, 5% considered allowing pharmacy owners to use their registration without being present as misconduct, and 16% labeled using agents to acquire patients as misconduct. Furthermore, 18% noted not displaying the registration certificate in the pharmacy as misconduct, while 31% were unaware of such misconduct as outlined in pharmacy practice regulations.

Approximately 12% of participants believed that advertising was considered an unethical act according to PPR,2015. Meanwhile, 15% associated unethical behavior with secret remedies, 6% with rebates and commission, and 10% with violations of human rights. Additionally, 27% thought all of these were unethical, while 32% were unaware of such provisions in PPR,2015. The current study's findings indicate that a significant number of community pharmacists lack awareness and possess limited knowledge about the pharmacy practice regulations of 2015.

### 3.3. Attitude and Perception assessment of community pharmacist towards PPR,2015



**Figure 4** Duties of community pharmacist performed in a day

Among the duties mentioned in the PPR,2015, pharmacists reported performing the following tasks: 89% were engaged in dispensing, 18% focused on ensuring safety of medicine, 16% handled documentation, 4% provided screening services, 2% were involved in teaching, and 9% indicated they performed all the mentioned duties.

**Table 2** Attitude of community pharmacist towards PPR,2015

1. Are you willing to provide the above-mentioned duties in future?	
a. Yes	78 (78%)
b. No	22 (22%)
2. Which of these duties can be performed only by a community pharmacist?	
a. Removal of drugs from packing	23 (23%)
b. Directly dispensing medication to patients	46 (46%)
c. Filling of prescription	23 (23%)
d. Stocking of drug in the pharmacy	18 (18%)
3. Are you involved in providing patient counselling?	
a. Yes	31 (31%)
b. No	69 (69%)
3(a). If yes, types of information you provide during patient counselling?	

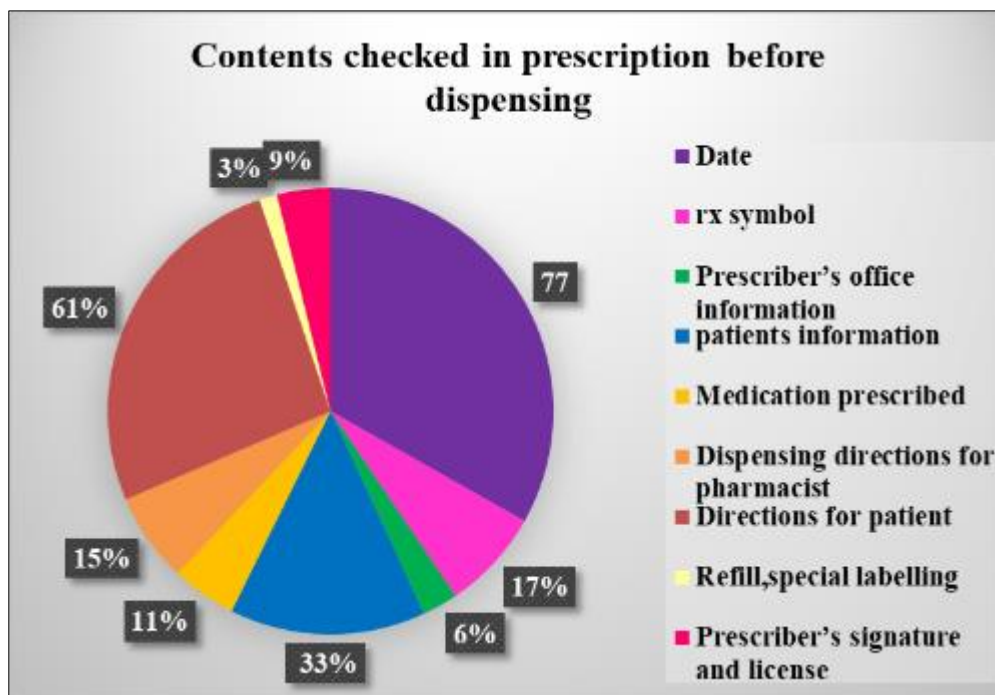
a. Name and prescription of the drug	9 (9%)
b. The dosage form, dose, route of administration.	18 (18%)
c. Special directions and precautions	3 (3%)
d. Proper storage of drugs	2 (2%)
e. Intended use of drugs	2 (2%)
f. Prescription refill information	-
g. Common severe side effects	2 (2%)
h. Techniques for self-monitoring	-
i. Action to be taken in the event of missed dose	1 (1%)
j. To ensure rational use of drugs	1 (1%)
3(b). If no, are you interested in providing patient counselling in future?	
a. Yes	18 (18%)
b. No	52 (52%)
4. Do you wear white apron during working hours?	
a. Yes	78 (78%)
b. No	22 (22%)
5. Is it mandatory for RX to wear white apron according to PPR 2015?	
a. Yes	89 (89%)
b. No	11 (11%)

Among the participants, 22% was unwilling to provide the mentioned services in the future, while 78% expressed their willingness to undertake the mentioned duties

As per the Pharmacy Practice Regulations of 2015 (PPR, 2015), certain activities related to dispensing medication can only be carried out by a registered pharmacist. These activities were reported by pharmacists as follows: 23% mentioned the removal of drugs from packaging, 46(46%) stated that directly dispensing medication to patients, 23% indicated involvement in filling prescriptions, and 18% reported being responsible for stocking drugs within the pharmacy.

About 31% of community pharmacists were involved in patient counseling. Among these, 9% ensured the accuracy of the name of the drug and description, 18% verified the dosage form, dose, and route of administration, 3% provided guidance on special directions and precautions, 2% confirmed proper drug storage, 2% discussed the intended use of the medication, 2% highlighted common severe side effects, 1% advised on the action to be taken if a dose is missed, and another 1% ensured the rational use of drugs. However, 69% of community pharmacists were not directly engaged in patient counselling. Among this group, 18% expressed an interest in offering patient counselling in the future, while 52% indicated that they did not plan to provide patient counselling in the future.

A total of 78% of pharmacists chose to wear aprons while working, while 22% opted not to wear them. Regarding the requirements set by the Pharmacy Practice Regulations of 2015 (PPR, 2015), 89% of participants affirmed that wearing a white apron was mandatory during working hours, while 11% asserted that it was not obligatory to wear an apron as per the regulations.



**Figure 5** Contents of prescription checked by pharmacists before dispensing

The study revealed that 100% of participants checked the prescription before dispensing the medication. Out of 100 participants it was seen that 77% of pharmacists checked date, 17% checked Rx symbol, 6% checked prescriber's office information, 33% checked patients' information, 11% checked medication prescribed, 15% checked dispensing directions for pharmacist, 61(61%) checked directions for patients, 3% checked refill, special labelling and 9% checked prescribe's signature and license.

**Table 3** Attitude and perception of community pharmacist towards PPR, 2015

1. Do you check prescription before dispensing the medication?	
a. Yes	
b. No	100 (100%)
2. Which of these do you assess in the prescription before dispensing?	
a. Prescription is legally valid	75 (75%)
b. Appropriate dosage form, route of administration and duration of treatment	10 (10%)
c. Appropriateness to patient's condition, patient's parameters and previous medication	1 (1%)
d. Compatibility with the medications	7 (7%)
e. Side effects, adverse drug reactions and contra indications	6 (6%)
f. Potential for misuse of medications by patients	2 (2%)
g. Prescription is complying with labelling requirements	6 (6%)
3. Which of this therapeutic information do you check in the prescription before dispensing?	
a. Over utilization and under utilization	41 (41%)
b. Drug-disease interaction	10 (10%)
c. Drug duplication	16 (16%)
d. Misuse drug allergy interaction	9 (9%)
e. Incorrect drug dosage	29 (29%)
f. Drug-drug interaction	10 (10%)
g. Correlation of availability of drugs	4 (4%)
h. Clinical abuse	6 (6%)



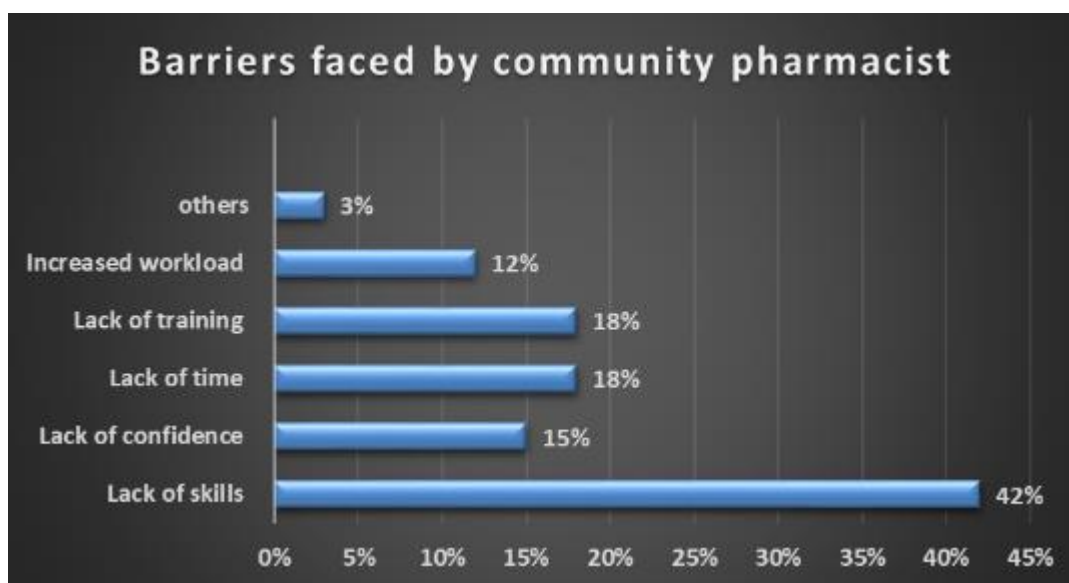
The general information pharmacists checked before dispensing medication varied: 75% of pharmacists verified if prescription is legally valid, 10% assessed the appropriate dosage form, route of administration, and treatment duration, 1% considered appropriateness for patients' condition, parameters, and prior medications, 7% evaluated compatibility with other medications, 6% reviewed side effects, adverse reactions, and contraindications, 2% assessed potential for misuse by patients, and 6% ensured prescriptions complied with labeling requirements.

The community pharmacists assessing therapeutic information in prescriptions before dispensing found that 41% checked for over utilization or under-utilization, 10% evaluated drug-disease interactions, 16% identified drug duplication, 9% addressed misuse and drug allergy interactions, 29% verified correct drug dosages, 10% examined potential drug-drug interactions, 4% considered the availability of drugs, and 6% monitored for signs of clinical abuse.

In the context of this study, pharmacists were queried about the necessity of attending refresher courses in pharmacy before the renewal of their registration within a 5-year timeframe. The responses indicated that 5% of pharmacists believed the requirement to be one course, 30% believed it was two courses, 44% asserted it was three courses, and 21% of participants contended that the requirement encompassed more than three courses.

Among the pharmacists surveyed, a significant majority of 96% diligently maintained patient records. Within this group, 77% chose to manage these records through billing processes, 12% opted for electronic devices, and 7% utilized other methods for record-keeping. However, a smaller portion, 4% of pharmacists, did not engage in the practice of maintaining patient records,

Almost all pharmacists 99% stated that their pharmacy prominently displayed pharmacist information, while only a small minority 1% disagreed.



**Figure 6** Barriers community pharmacists face in practicing the PPR, 2015

When it comes to engaging in the practice of the Pharmacy Practice Regulations of 2015 (PPR, 2015), pharmacists cited various barriers: 42% identified a lack of skills, 15% pointed to a lack of confidence, 18% cited insufficient time, another 18% mentioned a lack of training, and 12% believed it to be increased workload.

Among the surveyed pharmacists, 55% believed that adhering to Pharmacy Practice Regulations was essential for improving patient healthcare. In contrast, 20% held the opinion that following these regulations was unnecessary, while 28% expressed uncertainty on the matter.

### **3.4. Correlation between the duties performed by community pharmacists and the barriers hindering them from fulfilling the obligations outlined in PPR 2015 using Pearson's co-efficient correlation method**

In the analysis of the correlation between the duties performed by community pharmacists and the barriers hindering them from fulfilling the obligations outlined in PPR 2015, it was determined that there is no significant correlation

between these factors. The correlation coefficient (R) was found to be 0.0116, with a p-value of 0.909742, indicating a lack of statistical significance at the  $p < 0.05$  threshold.

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#### 4. Discussion

During the 2.5-month study period, a total of 100 community pharmacists were evaluated, with 55% being female and 45% male. This gender distribution closely resembled that found in T. Rubica et al [3]'s study. Furthermore, the age distribution in this study revealed a significant male majority at 68%, with 32% of participants being female. In a separate study by Hanafi et al., 40.9% of participants were male (303 individuals), while 58.4% were female (433 individuals).

The median age of responders was 25.5 (25-26) years, similar age of responders was found in the Ayenew Wondim et al [8], study i.e., median age of responders were 26 years.

The analysis of community pharmacists' experience revealed that the majority of them had more than 2 years of experience, while the rest had one or less than one year of experience. Similar experience details were reported in the study by Jagarlamudi A et al [6]. In their survey, it was observed that approximately 50% of the pharmacists had experience ranging from 2 to 3 years, while the remaining had experience ranging from days to a few months.

From our study it is found that people with less than 10 years of experience had more knowledge about PPR, 2015 when compared to participants with more years of experience

Among the 100 participants, only a small minority were aware of the Pharmacy Practice Regulations, 2015, and even fewer possessed a deep understanding of these regulations. The majority of participants were found to be unaware of them. According to Hanafi et al [10], the most significant discovery in their study was that the pharmacists exhibited a low level of knowledge (with a mean score of 13.42) and practice (with a mean score of 29.85) regarding Good Pharmacy Practice (GPP). However, despite this low knowledge and practice level, the pharmacists in the study held a positive attitude towards this subject, as indicated by their high mean score of 74.83 in this regard.

The analysis of participants' knowledge regarding the duration for maintaining patient records revealed that a considerable number of them lacked awareness about this duration. Similar findings were reported in a study conducted by T. Rubica et al [3], where the majority of people were also found to be unaware of the recommended duration for maintaining such records.

In the present study, most community pharmacists dispensed medications daily and checked various contents of prescription. Notably, majority of the pharmacists placed primary importance on verifying the date, while a limited directed their attention towards examining the prescriber's office and information. Furthermore, community pharmacists also conducted comprehensive checks on other prescription contents."

In a similar study conducted by T. Rubica et al [3], it was found that a significant majority of pharmacists, comprising more than half of the participants, prioritized the verification of the prescription date. Conversely, a minority of the participants, focused their attention on checking for prescription refills, special labelling. Other contents of prescription were also checked by the pharmacist.

The present study's results indicate that patient counselling was offered by only less than half of pharmacists, with the majority opting not to provide such services. Notably, among those who did not provide counselling, only 18(18%) expressed a willingness to consider it in the future, while the majority remained disinclined to do so. In a study conducted by K.P R et al [4], it was found that a slightly higher percentage of community pharmacists, provided patient counselling. The developed country like USA mandates counsel the patients about their prescriptions through The Omnibus Budget Reconciliation Act 1990(OBRA 90). A quantitative study by N.M. Hamoudi et al in UAE showed that the 92% of the pharmacists agreed that patient counselling is their professional responsibility. About 82% of pharmacists agreed that counselling will increase their sales & enhance the reputation of their pharmacies

The majority of community pharmacists wore aprons during their working hours, most of the participants were working in large scale medicals whereas very few of participants worked in small scale medical facilities. while only a small percentage, 22(22%), did not wear aprons. Additionally, the majority of pharmacists exhibited a positive attitude toward the compulsory wearing of aprons in accordance with the Pharmacy Practice Regulations of 2015. This study revealed a favourable response toward wearing aprons, particularly among participants working in large-scale medical facilities. In contrast, pharmacists employed in small-scale medical settings were less inclined to wearing white aprons.

In the study conducted by T. Rubica et al [3], it was found that only 17% of pharmacists chose to wear aprons, while a significant majority opted not to wear aprons during their working hours.

In this study, most community pharmacists preferred to maintain patient records through billing systems, while rest of the participants utilized electronic devices and employed other methods. In a study by T. Rubica et al [3], majority of pharmacists relied on billing for record keeping, 11% used electronic devices, and 9% chose alternative methods.

Community pharmacists in this study reported facing several barriers that hindered them in practicing the Pharmacy Practice Regulations of 2015. Notably, majority of them faced challenges which resulted from a lack of skills, while other participants cited a lack of confidence, lack of time, inadequate training as a hindrance. Interestingly, the least common obstacle encountered was an increased workload. The study conducted by T. Rubica et al [3]. similarly identified barriers faced by community pharmacists. These barriers are related to a lack of knowledge, time, and training. Furthermore, the previous studies in the same field also noted various barriers experienced by community pharmacists when it comes to adhering to Pharmacy Practice Regulations, 2015. World pharmacists' day is celebrated on September 25<sup>th</sup> each year is significant as it raises awareness about the indispensable role pharmacists have in patient care. It is an occasion to honour their expertise in medication management, their ability to educate about their prescriptions, and their dedication to promoting health and wellness. This day is serves as remainder to acknowledge and support the hard work of pharmacists worldwide, ultimately benefiting public health.

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## 5. Conclusion

Overall observation through this survey revealed that only a part of community pharmacists is aware about the PPR,2015 and content of the same. In our country, until now, pharmacists have been primarily perceived as individuals who dispense medications, much like those in regular stores. However, educated individuals recognize pharmacists as professionals one step ahead, holding licenses for drug dispensing beyond the capabilities of the average person. Medication errors in community pharmacy setting can have severe consequences including patient harm or even death. To shift this perception, proactive measures are required. This includes implementing Continuing Pharmacy Education programs are crucial for community pharmacists to stay updated on best practices, regulations, safety protocols. By participating in these programs, participants can enhance their knowledge and skills reducing the risk of medication errors and ultimately improving patient safety also to provide the services mentioned Pharmacy Practice Regulations of 2015, meeting the standards set by the Pharmacy Council of India. Furthermore, the introduction of pharmacy assistants should only be encouraged for individuals who have completed at least a minimal Diploma course in Pharmacy or gained relevant working experience under a registered pharmacist. These assistants could be instrumental in the routine dispensing of drugs in stores, but it's essential to adhere to regulations, ensuring they are not granted licenses to manage an entire pharmacy independently without proper supervision. Practicing pharmacists should be encouraged to update their knowledge by attending continuous education programmers. World pharmacists' day should be conducted to highlight the significance of pharmacists in healthcare and promote their ongoing dedication to patient well-being. The morals and responsibilities of community pharmacists should be continuously reminded to the pharmacists.

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## Compliance with ethical standards

### *Acknowledgments*

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### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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