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Assessing the Barriers to Community Pharmacy Services in Karachi, Pakistan: Regulatory, Operational, and Societal Factors

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Abstract:

Background: Community pharmacies have the potential to provide accessible, patient-centred pharmaceutical care and contribute substantially to primary healthcare. However, the development of community pharmacy practice in Pakistan remains constrained by regulatory, operational, economic, and societal challenges. This study aimed to explore the barriers affecting community pharmacy services in Karachi, Pakistan, from the perspectives of practicing community pharmacists.

Methods: A qualitative study was conducted using structured online interviews within focus group discussions. Three focus groups comprising managerial, senior, and junior community pharmacists were selected through selective sampling. A total of 18 community pharmacists, with at least one year of professional experience in Karachi, participated in the study. Interviews consisted of eight open-ended questions and were conducted through Zoom, with each session lasting approximately 40–50 minutes. Audio recordings were transcribed verbatim and analyzed thematically to identify recurring patterns and perspectives.

Results: Four major themes emerged from the analysis: (1) regulatory challenges and medication availability; (2) public perception, patient interaction, and financial sustainability; (3) internal challenges and career attraction; and (4) pharmaceutical industry collaboration and the future of community pharmacy. Participants reported inadequate public awareness of pharmacists' professional roles, limited trust in pharmacist-led counselling, resistance to generic medicines, medication shortages, supply-chain limitations, and competition from inadequately regulated medical stores. Polypharmacy, inappropriate dosing and prescription-related problems were also identified as challenges to effective patient care. Internally, staffing shortages, long working hours, limited remuneration, inadequate training opportunities, and restricted career progression reduced the attractiveness of community pharmacy practice. Participants further identified limited collaboration between pharmaceutical companies and community pharmacies as an additional barrier.

Conclusion: Community pharmacy practice in Karachi faces interconnected regulatory, supply-chain, societal, financial, workforce, and professional challenges that limit the delivery of comprehensive patient-centred pharmaceutical care. Strengthening regulatory enforcement, improving medicine supply chains, promoting generic prescribing, increasing public awareness of pharmacists' roles, investing in pharmacist training and workforce retention, and developing stronger collaboration between pharmaceutical industry stakeholders and community pharmacies may support the development of sustainable community pharmacy services in Pakistan. Further research should evaluate the impact of proposed interventions on patient outcomes and pharmacist satisfaction.

Keywords: Community pharmacy; Community pharmacists; Pharmacy practice; Pharmaceutical care; Patient-centered care; Medication counselling; Drug supply chain; Regulatory barriers; Pakistan; Karachi

1. Introduction

At the core of healthcare is the patient-centred approach, which emphasizes the value of accommodating patients' requirements, choices, and flexibility in order to enhance overall health outcomes [1]. Community pharmacies have great potential to sustain and successfully implement this strategy due to their accessible location and strategic positioning. They are essential to the provision of primary healthcare and are crucial to pharmacists' professional growth. Community pharmacists' standing within the larger medical care hierarchy is strengthened by their recognition as reliable healthcare providers that consumers can turn to for medical advice.

A holistic focus on the individual is necessary for a truly patient-centred approach, guaranteeing high-quality healthcare at all levels [1,2]. For community pharmacy pharmacists, this includes delivering quality drugs, keeping the supply chain uninterrupted, maintaining appropriate storage conditions, and abiding by legal requirements. As providers of patient care, pharmacists are in charge of assisting patients in using drugs appropriately and stepping in when needed to guarantee their efficacy and safety [2]. Community pharmacists can demonstrate patient-centred care by fulfilling these requirements, earning the trust of their local communities and enhancing health outcomes.

Research has shown that community pharmacy practice is changing over time. Enhanced and advanced services like counselling, drug information, blood pressure monitoring, vaccinations, and diabetic self-management have replaced traditional compounding and dispensing by pharmacists. In developed nations including Australia, Canada, England, the Netherlands, Scotland, and the United States, the function of pharmacists has been legally increased by legislative and regulatory changes.

Community-based pharmacists in these nations are able to independently prescribe drugs, request and interpret laboratory testing (Canada has certain
restrictions on this), issue emergency prescription refills, and extend or renew existing prescriptions. Pharmacists in the UK provide services such prescription use reviews and expanded services, which include smoking cessation programs, chronic disease screening, minor illness treatment, and supplemental prescribing. Pharmacists in Australia offer clinical interventions, medication usage reviews, collaborative medication reviews, and pharmacological information. They have also taken on more complex responsibilities, like reviewing home medications. The introduction of drug therapy management in the US has strengthened the role of community pharmacists even further [3].

Patients are more satisfied with these services, especially when they receive counselling, which builds loyalty and trust. For advice on mild illnesses and drug information, pharmacists are
frequently chosen as the initial point of contact in the healthcare system.

Additional services including wellness counselling, chronic illness management, screening, and immunization programs improve patient care by offering convenience, preventative measures, and continuous support. These services strengthen the pharmacist's position as a reliable healthcare practitioner in addition to improving health outcomes. Technology-enhanced pharmacy services also make drug management easier, which improves adherence and lessens burden for pharmacies. Even if patient satisfaction rises as a result of these services, gaps in medication counselling and follow-up effectiveness point to areas that still require development.

However, a number of obstacles prevent community pharmacies from providing pharmacy services. Many community pharmacies lack designated counselling spaces and are primarily designed to dispense drugs. Pharmacists are also frequently distracted by dispensing duties. The lack of appropriate reimbursement models is an important barrier to growing patient-centered services since it deters pharmacists from taking on more duties. Many pharmacies lack electronic documentation systems and electronic health record (EHR) integration, despite technological developments. Furthermore, although the role of pharmacists is expanding and legally recognized in some states, this is not yet the case in all regions.

Pakistan differs greatly from other nations in how community pharmacies are set up and how drugs are sold. Inadequate medicine storage, unregulated sales, a shortage of licensed pharmacists, and inadequate enforcement of pharmacy regulations are major problems [4]. Although maintaining the safety and quality of medications is essential to healthcare, community pharmacies in Pakistan struggle to comply with legal requirements. Studies show that licensing, storage, and dispensing procedures are frequently non-compliant, even in spite of the legislative regulations that regulate pharmacy operations. The lack of certified pharmacists in many pharmacies raises questions regarding the efficacy and safety of the drugs that the general public is given [5].

This study aims to highlight the challenges and barriers faced by community pharmacists in Karachi, Pakistan's largest urban centre. These obstacles hinder the establishment of basic pharmacy services, affecting the growth and survival of community pharmacies. Moreover, it discusses the stunted growth of community pharmacies has on the profession of pharmacy, restricting its potential to improve healthcare outcomes.

2. Methodology:

2.1 Design:

This study is based on a qualitative research design to explore the perspectives of community pharmacists that why community pharmacy system is not well established as in other developed countries. Data was collected through online structured interviews conducted within focus group discussions. The collected data was analyzed using thematic analysis to identify recurring patterns and insights.

2.2 Participants Sampling:

Three focus group from different chain pharmacies were selected through selective sampling technique i.e Managerial level pharmacists, Senior Pharmacist and junior Pharmacist. Each focus group consisted of six participants. Backup participants were available but were not needed due to data saturation. All participants involved in this study must possess at least one year of professional experience as a community pharmacist in Karachi.

2.3 Data Collection Procedure:
A structured interview with eight open-ended questions was developed. The questions were based on a comprehensive review of existing articles on the community pharmacy system in Pakistan. Interviews were conducted separately for each focus group via Zoom. Each interview session lasted approximately 40 to 50 minutes. All interviews were audio-recorded for accurate transcription and analysis.

2.4 Pre Interview Procedures:
The participants (Pharmacists) were contacted through phone calls and fully informed about the study's purpose and procedures to obtain consent, and appointment was made at their convenience.

2.5 Data Analysis (Thematical Analysis)
All audio recordings from the Zoom interviews were transcribed exactly word to word. The researcher listen recordings of interviews and turned all the recorded interviews into written documents, typing out every word they said. The researcher listened to the recordings and read the written transcripts many times and marked all the repeated phrases.

3. Result:
Total of 18 pharmacists were recruited in this study including 7 female pharmacists and 11 male pharmacists having experience of minimum 1 year to maximum 10 years. Four key themes emerged from this qualitative analysis include:
1.Regulatory Challenges and Medication Availability in Community Pharmacy
2.Challenges in Public Perception, Patient Interaction, and Financial Sustainability in Community Pharmacy
3.Internal Challenges and Career Attraction in Community Pharmacy
4.Attracting Graduates to Community Pharmacy and Collaboration with the Pharmaceutical Industry

3.1 Theme 1: Regulatory Challenges and Medication Availability in Community Pharmacy
Participants highlighted several regulatory challenges that impact patient interactions within community pharmacies. A key issue identified was the lack of public awareness regarding the role of community pharmacists. Many patients do not place their trust in pharmacy regulations, perceiving them as time-consuming and unreliable. This lack of trust leads to resistance toward brand alternatives, inadequate prescription and patient data recording, and poor medication compliance monitoring. One of the primary concerns expressed by pharmacists was patients' reluctance to accept generic alternatives, which is largely due to the absence of proper guidance and generic prescriptions from physicians. Pharmacists suggested that if doctors were to prescribe generically rather than enforcing brand-specific prescriptions, it would facilitate cost-effective medication delivery without imposing a financial burden on patients. Furthermore, participants emphasized that if pharmacies were to adhere to regulatory guidelines, patients would develop greater trust in pharmacists and their prescriptions. The issue of trust in community pharmacies was also linked to medical stores, which often do not follow storage regulations or engage in proper patient counseling. Many patients prefer these stores as they offer a simpler and faster transaction process, where medications are dispensed without follow-ups or consideration of the patient's financial constraints.
Participants also discussed issues related to medication availability and supply chain management. Two primary factors were identified, first, limited stock allocation from pharmaceutical companies, which is that many community pharmacies obtain their supplies directly from pharmaceutical industries. However, manufacturers often provide restricted stock allocations to pharmacies that operate multiple branches, leading to frequent shortages of essential medications. Second, dependence on multinational companies (MNCs), many medications are produced exclusively by MNCs, which limits the availability of alternative brands in the market. The recent shutdown of several MNCs in Pakistan has further disrupted medication supply, resulting in critical shortages. Additionally, pharmaceutical companies often fail to meet demand across all pharmacy branches, exacerbating the supply chain issue.
Participants also highlighted the connection between supply chain issues and brand prescriptions, stating that patients' reluctance to switch brands, due to lack of counseling or follow-up from doctors, further compounds medication shortages. They suggested that a shift toward generic prescribing could mitigate some of these challenges.

Theme 1: Summary Table 1

Theme	Issues	Impact/Outcome	Perspective
Regulatory Issues	Lack of public awareness of the role of community pharmacists	Patients do not trust pharmacy regulations; perceive them as time-consuming and unreliable	Pharmacist 2: "People still are not fully aware of pharmacist's role and their duty, they rush things over making it difficult for a pharmacist to fully comply with the regulations and perceive the process as time consuming."
	Patients' resistance to brand alternatives	Leads to inadequate prescription and patient data recording; poor compliance monitoring	Pharmacist 1: "For example, our patients have it ingrained in their minds by doctors that they need to get medicines from a specific company...'
	Doctors prescribing brand-specific medications instead of generics	Patients reluctant to accept generics; financial burden on patients	Pharmacist 1: "If doctors start prescribing on a generic basis... this would ease the financial burden..."

	Pharmacies adhering to regulatory guidelines face longer procedures	Customers prefer quick transactions and avoid standard procedures	Pharmacist 8: "This is usually difficult for customers to comply with... purchasing medications from a medical store..."
	Medical stores do not follow storage regulations or offer counseling	Patients prefer them for faster, simpler purchases without financial assessment	Pharmacist 8: "If a pharmacy complies with the standard, the procedure is lengthy and requires the customer to be patient. This is usually difficult for customers to comply with, leading them to choose the easier alternative: purchasing medications from a medical store where questions aren't asked and they can avoid a lengthier process and protocol."
	Low prevalence of community pharmacies (only 5–10%)	Most drugs are sold through medical stores, diverting patient flow	Pharmacist 12: "The prevalence of community pharmacies is only 5–10%..."
Supply Chain and Medication Availability	Limited stock allocation from pharmaceutical companies	Frequent shortages of essential medications	Pharmacist 1: "We always face availability issues due to the supply chain..."
	Pharmaceutical companies prioritize larger chains; can't meet demand across branches	Pharmacists resort to local purchases; reliability compromised	Pharmacist 4: "We often have to make local purchases... reliability is compromised..." Pharmacist 16: "Dependence on unreliable supply chains... compromises medicine quality and patient trust."
	Shutdown of MNCs in Pakistan	Shortages of medications that have no generics; delays in treatment	Pharmacist 6: "A 40% drawback was observed... many MNCs are shutting down operations..."
	Brand-specific prescriptions limit flexibility	Patients' reluctance to switch brands exacerbates shortage issues	Pharmacist 5: "We can overcome this... by having doctors support us by prescribing on a generic basis."
	Customer complaints when stock is unavailable at pharmacy but present in market	Affects pharmacy sales and customer satisfaction	Pharmacist 18: "If a company enforces a stock limit... customers then complain... affect both sales and satisfaction."

3.2 Theme 2: Challenges in Public Perception, Patient Interaction, and Financial Sustainability in Community Pharmacy

Participants shared their perspectives on how public perception remains a major barrier preventing community pharmacies from fully adopting a patient-centric role. According to them, a significant portion of the public remains unaware of the pharmacist's role, often questioning their qualifications, expertise, and authority in medication guidance. This lack of awareness creates resistance in patients when seeking pharmacists' advice and affects their willingness to trust pharmacists for medication-related inquiries.

During patient interactions, a recurring issue identified was the lack of trust in pharmacists due to limited public awareness of their role. This trust deficit leads to multiple challenges in pharmacist-patient interactions, particularly when providing medication counseling. Another consistent challenge reported was polypharmacy, the excessive use of multiple medications by a single patient. Participants highlighted cases where prescriptions contained duplicate or unnecessary medications, inappropriate dosages for pediatric patients, or incorrect frequency instructions. However, due to a lack of trust, patients often seem to disregard pharmacists' advice regarding drug-drug interactions and polypharmacy risks.

Participants shared that financial sustainability in community pharmacy is impacted by three major factors. The first issue is the presence of local retail medical stores, which often sell medications at lower prices without compliance with regulations. These stores attract a significant portion of patients, naturally reducing the patient flow to properly regulated community pharmacies, thereby affecting their financial stability. The second challenge arises from the high cost of branded prescriptions and the limited availability of medications. Physicians frequently prescribe expensive branded medications, which many patients struggle to afford. In some cases, these medications are not readily available in pharmacies. However, since such prescriptions are common, pharmacies are forced to stock these costly medicines, creating financial strain due to high inventory costs. The third factor contributing to financial instability is the low profit margin, exacerbated by competition with medical stores. To attract more patients, community pharmacies often implement discount strategies, which further reduce their profit margins. Additionally, the lower patient flow leads to reduced sales revenue, increasing the financial burden of maintaining operations. The operational costs, including hiring multiple pharmacists for different shifts, ensuring compliance with regulatory standards, and maintaining adequate inventory, further impact profitability. This financial strain also affects pharmacist salaries, making community pharmacy jobs less attractive in terms of financial compensation.

Theme 2: Summary Table 2

Theme	Issues	Impact/Outcome	Perspective
Public	Lack of public	Patients question	Pharmacist 14: "Many people don't have

Perception and Patient Interaction	awareness of pharmacists' roles	pharmacist qualifications and hesitate to seek guidance	the knowledge that pharmacists can also provide guidance about medicines or diseases."
	Public questions pharmacist expertise	Pharmacists must constantly justify their role and knowledge	Pharmacist 16: "Many people also question, What have you studied? What degree do you have? What is a pharmacist? Why is this person standing here?'..."
	Heavy reliance on physicians' prescriptions	Patients overlook dosage errors and drug interactions	Pharmacist 18: "Patients rely heavily on physician prescriptions without questioning dosage or drug interactions."
	Lack of trust in pharmacists during counseling	Patients often disregard pharmacist advice; weak interaction during consultations	Pharmacist 18: "Limited public awareness of pharmacists' roles exacerbates challenges. Patients rely heavily on physician prescriptions without questioning dosage or drug interactions."
	Polypharmacy and incorrect prescriptions	Duplicate meds, wrong dosages, inappropriate frequency instructions	Pharmacist 1: "Another issue we face is polypharmacy... patients come to us with a list full of medications..."
	Incorrect pediatric dosing	Overprescribing syrups for children leads to risk of overdose and loss of appetite	Pharmacist 10: "We once had parents of a two-year-old who brought a prescription with eight syrups... leaving no space in their stomach for even a glass of milk."
	Public reluctance to question doctors about prescriptions	Patients accept overprescription without concern or clarification	Pharmacist 12: "The general public still lacks the courage to question doctors, like asking, 'Why have you prescribed so many syrups?'..."
Financial Sustainability in Community Pharmacy	Local medical stores sell at lower prices without regulation	Reduces patient flow to regulated pharmacies, affecting financial stability	Pharmacist 4: "For economic pressures and in comparison with medical stores, a substantial amount of illegal activity takes place, such as procuring drugs from unauthentic sources, which results in higher profit margins in medical stores."
	Branded prescriptions are costly and sometimes unavailable	Patients struggle to afford medications; pharmacies must stock expensive items, straining finances	Pharmacist 3: "This medicine is too expensive... but patients insist we arrange it for them. Sometimes, even those medicines are not available with us..."
	Competition with unregulated stores that source from unauthentic suppliers	Medical stores enjoy higher margins; pharmacies operate on reduced profits	Pharmacist 4: "A substantial amount of illegal activity takes place... higher profit margins in medical stores..."
	Low profit margins due to discounting and operational costs	Revenue pressures; pharmacies implement discounts but bear staffing and procurement costs	Pharmacist 9: "Offering a 10% discount... hiring two pharmacists for the morning shift and two for the night increases operational expenses..."
	High operational and inventory costs	Financial strain forces pharmacies to reduce staff or compromise on salaries	Pharmacist 11: "High costs of acquiring and maintaining inventory... pharmacies may reduce staff or compromise on salaries."

3.3 Theme 3: Internal Challenges and Career Attraction in Community Pharmacy

While discussing internal challenges, participants identified staffing shortages as a major issue that contributes to several other problems. Inadequate staffing increases the workload on existing staff, leading to demotivation and work exhaustion. This shortage is primarily due to tight cost margins within pharmacies and pharmacists opting for alternative career paths after gaining experience and training in community pharmacy.

Additionally, female pharmacists' reluctance to work night shifts further exacerbates staffing issues. Other challenges include disruptions in inventory management caused by multiple panels and a lack of proper training and counselling for pharmacists due to financial constraints.

While discussing career approaches, participants identified two main perspectives. The first approach was focused on learning and knowledge enhancement, aiming to provide effective patient care while developing multiple skills, including management, leadership, and patient interaction. The second approach was business-oriented, where individuals sought to gain experience in Pakistan before moving abroad or aimed to establish their own pharmacy chains.

Participants also expressed concerns about the low payroll in the community pharmacy sector, which often leads to demotivation. However, many pharmacists found job satisfaction in patient counseling, as it allowed them to feel more connected to their field and profession. Additionally, they highlighted that the community pharmacy setup offers a well-rounded learning platform, where individuals can develop skills beyond patient interaction, including business management and operational expertise.

Theme 3: Summary Table 3

Theme	Issues	Impact/Outcome	Perspective
Internal Challenges in Community Pharmacy	Staffing shortages due to cost margins and alternative career paths	Increases workload, leads to demotivation and exhaustion	Pharmacist 10: "Staffing availability is a critical issue... we have to ask another employee to extend their shift. This results in long working hours and exhaustion."
	Limited compensation flexibility for extended shifts	Financial constraints prevent fair compensation for overtime	Pharmacist 12: "If the missing employee extends their shift... ensuring they are fairly compensated... depends on finance or upper management."
	Female pharmacists' reluctance to work night shifts	Staffing shortages persist during night shifts	Pharmacist 13: "Staff shortages, especially for night shifts, force extended hours, reducing employee satisfaction..."
	Aggressive customer behavior and inadequate facilities	Increases stress on pharmacists	Pharmacist 13: "Inadequate facilities and aggressive customer behavior further increase stress on pharmacists."
	Multiple supply panels in pharmacy	Disrupts inventory management	Pharmacist 6: "Balancing medicines in a pharmacy with multiple supply panels is a challenge and disrupts our inventory management."
	Financial constraints hinder staff development	Limits ability to provide training and counseling to pharmacists	Pharmacist 2: "Since all operations are cost-driven, providing proper guidance and counseling to pharmacists is often not feasible."
	Pharmacists switching to other career paths after training	Training investment feels wasted	Pharmacist 5: "Pharmacy students gain experience... However, after graduation, they frequently move to other career paths..."
Career Attraction in Community Pharmacy	Career approach 1: Learning-focused for patient care and skill development	Enhances patient interaction, leadership, and operational management skills	Pharmacist 8: "I chose community pharmacy to gain exposure to medicines, brands, generics, and the pharmaceutical industry as a whole."
	Career approach 2: Business-oriented or pathway to overseas employment	Community pharmacy seen as stepping stone for entrepreneurship or migration	Pharmacist 11: "If someone wants experience or a startup, community pharmacy is a good choice. However, many opt to go abroad..."
	Low payroll and limited advancement	Demotivates pharmacists; makes sector less attractive	Pharmacist 16: "The community pharmacy sector offers limited career advancement and salary growth compared to the pharmaceutical industry..."
	Broader skill development in community pharmacy	Builds leadership and supply chain knowledge	Pharmacist 13: "In hospitals, you gain more disease-related knowledge, but in community pharmacy... you often manage a branch..."
	Patient counseling brings job satisfaction	Strengthens pharmacist-patient connection; affirms education's value	Pharmacist 4: "The satisfaction in community pharmacy comes from educating patients... It makes you feel that your education is being utilized..."

3.4 Theme 4: Enhancing Community Pharmacy: Bridging Industry Collaboration & Future of Community Pharmacy in Pakistan

When asked about industry-pharmacy collaboration, participants shared their perspectives on the challenges faced by community pharmacies. One major concern highlighted was that pharmaceutical industries primarily target physicians to market their products rather than collaborating with pharmacists. Industries provide incentives and perks to doctors to encourage them to prescribe specific medications, overlooking the role of community pharmacists. As a result, when doctors prescribe a particular medicine, both the industry and physicians expect community pharmacies to stock it immediately. However, in reality, community pharmacies operate as structured organizations that follow a thorough process before stocking a new product. This decision is based on prescription frequency, customer demand, and an assessment of whether the medication aligns with their inventory needs. This process takes time, and further challenges arise due to inefficiencies in the industry's supply chain, including stock shortages and distribution issues.

Participants suggested that industries hesitate to collaborate directly with community pharmacies because pharmacists prioritize generic and cost-effective medication options, which may not align with the industry's focus on promoting branded drugs. However, they emphasized that fostering a collaborative relationship between the pharmaceutical industry and community pharmacies could be highly beneficial. This collaboration could involve initiatives such as healthcare camps, supply chain improvements, and better coordination between pharmacies, distributors, and manufacturers.

When discussing the future of community pharmacy in Pakistan, participants underscored a growing recognition of pharmacists' roles, particularly in urban centers like Karachi. There is a noticeable shift in public perception, with greater awareness of the pharmacist's place within the broader healthcare system. Nevertheless, participants noted that significant work remains to establish a cohesive and functional model of community pharmacy practice across the country.

A recurring theme in the discussions was the need for pharmacists to actively engage in public education clarifying their professional qualifications and demonstrating how they can support patients with medication-related concerns. Participants stressed the importance of increasing public understanding of pharmacists' responsibilities, not only in community settings but also within hospitals.

To promote this understanding, several strategies were proposed, including the use of social media, community pharmacy outlets, and hospital networks as platforms to communicate pharmacists' contributions to healthcare. Participants suggested that community pharmacies should move beyond marketing campaigns focused solely on discounts and instead use digital platforms to showcase the clinical and advisory services they provide. The integration of healthcare clinics with community pharmacies was also highlighted as a promising model. Such arrangements would enable patients to consult physicians and receive immediate pharmaceutical guidance, potentially improving both medication adherence and overall care.

The provision of basic health services such as blood pressure checks and blood glucose monitoring at community pharmacies was identified as another avenue to build public trust and reinforce the pharmacist's credibility. Furthermore, participants emphasized the importance of equipping pharmacists with practical competencies necessary for managing community-based practices. These include effective communication, accurate interpretation of prescriptions, patient counseling, and a strong command of pharmacological principles and dosage protocols. Confidence in patient interactions was also seen as a key attribute for pharmacists seeking to elevate their role in the healthcare landscape.

By addressing these challenges and opportunities, community pharmacies in Pakistan can play a more integral role in the healthcare system enhancing patient care, fostering trust, and contributing meaningfully to public health outcomes.

Theme 4: Summary Table 4

Theme	Issues	Impact/Outcome	Perspective
Industry Collaboration & Future of Community Pharmacy	Pharmaceutical industries prioritize physicians over pharmacists	Community pharmacies are expected to stock prescribed medications immediately, without adequate collaboration or support	Pharmacist 7: "When managing a large pharmacy chain, companies expect us to stock their medicines, but they fail to cooperate with us despite doctors referring patients to our pharmacies."
	Pharmaceutical industries offer incentives to doctors, neglecting pharmacists	Pharmacies lack support from the industry, and pharmacists' role in medication selection is overlooked	Pharmacist 3: "The pharmaceutical industry in Pakistan prioritizes doctors over pharmacists. They offer doctors incentives to prescribe their medications, leaving community pharmacies with little support."
	Industries hesitant to collaborate due to pharmacists' focus on generic and affordable medications	The gap between industry interests (branded drugs) and pharmacy priorities (generics) creates a barrier to collaboration	Pharmacist 9: "Community pharmacies are often overlooked because they focus on affordability and patient needs rather than promoting specific brands."
	Inefficiencies in the industry's supply chain, including stock shortages and distribution issues	Pharmacies face challenges in maintaining stock and fulfilling prescriptions due to supply chain problems	Pharmacist 12: "If these companies actively supported our supply chain, it would make a significant difference. Stronger collaboration between distributors and supply chains is crucial."
	Lack of industry support for health initiatives	Pharmaceutical industries could contribute to the growth of community pharmacies	Pharmacist 4: "Industries could contribute to the growth of community pharmacies by supporting health

		through education and health campaigns	initiatives, such as medical camps and patient education programs."
	Public perception of pharmacists' roles still evolving in Pakistan	Growing recognition of pharmacists' roles, especially in urban areas, but more work is needed to establish a functional model nationwide	Pharmacist 8: "In Karachi, people are becoming increasingly aware that dispensing medicines without a pharmacist is problematic. This awareness will contribute to the growth of community pharmacy."
	Public unaware of pharmacists' qualifications and roles	Public education is necessary to clarify pharmacists' responsibilities in healthcare	Pharmacist 10: "It is the responsibility of pharmacists to educate the public. By wearing lab coats and engaging with patients at the counter, we can showcase our expertise and the value of our five-year degree."
	Lack of communication and public education about pharmacy services	Social media, community pharmacy outlets, and hospital networks could be leveraged to educate the public about pharmacists' contributions	Pharmacist 5: "Social media plays a crucial role in raising awareness. Currently, pharmacy pages focus mainly on discounts and promotions. Instead, they should emphasize the pharmacist's role in healthcare."
	Over-reliance on technicians instead of pharmacists for patient interactions	This undermines pharmacists' authority and reduces the quality of patient counseling	Pharmacist 11: "In many local pharmacies, technicians often take the forefront instead of pharmacists. This is usually due to a lack of confidence or insufficient training, making pharmacists hesitant to counsel and guide patients effectively."
	Lack of integration of healthcare services in community pharmacies	Integrating healthcare clinics with pharmacies would enable a more holistic patient care model	Pharmacist 2: "Establishing clinics alongside pharmacies would be highly beneficial. In such setups, patients could consult doctors and then receive pharmacist guidance on their medications, ensuring proper dispensing and enhanced patient care."
	Limited provision of basic health services in pharmacies	Offering services like blood pressure and glucose monitoring can build public trust in pharmacists	Pharmacist 6: "Providing free health services such as blood pressure and blood sugar monitoring can strengthen public trust in pharmacists."
	Need for improved competencies and training for pharmacists	Equipping pharmacists with communication skills and clinical knowledge will enhance their effectiveness in patient care	Pharmacist 1: "Communication skills are the foundation for building patient trust. Pharmacists must also excel in patient counseling, prescription reading, and explaining drug interactions to ensure safe and effective medication use."

4. Discussion:

Although community pharmacist role is evolving into an indispensable healthcare provider, there are considerable systemic factors that affect their quality of patient care and professional growth. This paper describes major challenges faced by community pharmacists in regulatory, economic, operational, and sociocultural domains, and how to practically address these difficulties. This indicates an immediate requirement of holistic reforms that would enable the pharmacists to play the role of frontline healthcare defenders and enhance public health results at the same time. Community pharmacy practice is highly regulated, requiring significant administrative overhead to comply with narcotic legislation, licensing requirements, and record-keeping practices. While these regulations exist to protect patient safety, they create time-consuming documentation and caseloads of financial penalties for small infractions. To illustrate, fines for incomplete documentation of drug records or expiration dates afflict smaller pharmacies that do not have a large number of employees to monitor these factors. Such challenges mirror the international picture, where a complex regulatory environment stands in the way of healthcare innovation. Policymakers can practice nimble regulation by balancing oversight with the flexibility needed where a grant for compliance infrastructure (temperature-controlled storage facilities) or simplified renewal process is warranted. [6]

Moreover, enforcing registration laws upon all medical stores would also help level the field, mitigating asymmetric competition from non-registered players. Drug shortages for patient-critical medications such as insulin disrupt patient care and compromise the pharmacy-patient relationship. Such lean supply chains compel people to find medications from unreliable sources, thus putting quality and trust in jeopardy. Simultaneously, soaring drug prices and pressure from patients for discounts are squeezing margins, made worse by the operational costs (involved such as cold storage). These issues are

compounded in the low-resource settings where pharmacies struggle to compete against lower-priced, badly stored alternatives. [7,8] To address these problems, governments, pharmaceutical companies, and pharmacies must work together efficient supply chains, and subsidize important medicines, outside of pharmacies. It could also be helpful to train pharmacists to forecast the most needed items in terms of inventory and check with other branches to limit waste of expired products. [7]

While most pharmacists are experts in the field of drug therapy, the public has a poor understanding of their expertise. The perception of pharmacists by most patients is no more than a dispenser of medicines, unwilling to seek pre-filling advice or accept generic alternatives which could be less expensive and safer. This stems from a baked-in institutional discount on the role of pharmacists generally, as the health system remains laser focused on the physician as the center or hub of care. [9] Specific campaigns combining social media and community perspectives are needed immediately to bridge the gap and confirm to people that the pharmacist has skills in medication management skills, and chronic disease and preventive care counseling. This could create, for instance, combined clinics within pharmacies and free health screenings, which could help develop greater trust and increase great patient engagement as these places would then become healthcare hubs. [9,10]

Staff shortages, poor facilities and few prospects for career progression are major obstacles to pharmacy graduates choosing to work in community practice. Longer hours, workplace violence, and low salaries also produce low job satisfaction, and many professionals are leaving the field for positions in the Pharma industry instead. [6,11] In order to keep talent, structural reforms through competitive salaries, non -monetary incentives such as recognition programs, as well as well defined career path are critical. Highlighting the intangible & immediate rewards of community practice (impacting patient lives) may encourage them to pursue this path. [6,11]

Limits access to important training and resources by prohibiting direct collaboration between pharmaceutical companies and community pharmacies Emphasizes risk management as the only option. Collaboration and policy advocacy between the pharmaceutical industry and community pharmacies The lack of collaboration of the pharmaceutical industry with community pharmacies prevents access to some of the training and resource. Patient adherence and education are critical in successful treatment plans and often, one of the key groups in maintaining adherence, pharmacists, are overlooked as the industry incentivizes physicians Promoting policies enabling generic prescriptions and facilitating collaboration between the pharmaceutical industry and pharmacists may reduce costs and facilitate access to drugs. Additionally, supplying pharmacists with the latest knowledge regarding new treatments through industry-sponsored education would further establish their role as counselors. [10]

The problems that face community pharmacists are intricate but not insurmountable. Resolving these problems requires a multi-stakeholder approach with various players working towards updating the rules, improving public awareness, increasing supply chain resilience, and empowering the workforce. Future research must measure the impact of proposed interventions, such as pharmacy-based clinics or policy modifications, on patients' outcomes and satisfaction among pharmacists. By repositioning community pharmacies as part of comprehensive care, healthcare systems can fulfill their potential to increase accessibility, affordability, and quality of care globally. [10,12] This discussion resonates with global efforts to integrate pharmacists into primary care networks, recognizing their crucial but yet unexploited role in managing poly pharmacy, preventing medication errors, and reducing health disparities. [10,12,13] With the changing healthcare landscape, empowering community pharmacists is not so much a strategic option, it is central to increasing sustainable public health. [12]

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