Strategies and Best Practices for Improving Interprofessional Team-Based Care Models in Community Pharmacies

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Abstract

People are increasingly viewing community pharmacies as places for health services other than getting drugs. Community pharmacists must collaborate more often with healthcare workers as delivery of community-based care has become more complex. It is necessary, therefore, to describe best ways and recommendations that help stakeholders react to the changing environment and benefit patients more. The white paper presents examples of interprofessional practice where community pharmacies are involved around the world and afterward, changes the popular guiding principles for interprofessional practice to fit the needs of community pharmacy. Thus, this theory underlines that patients should be placed at the core of team-based care, leadership teams should demonstrate support for cooperation between providers, an interprofessional system should be built including community pharmacists, respect for community pharmacy should be upheld, gaps in communication and technology should be addressed and lastly, community pharmacies should join in on interprofessional learning. Handling problems and taking advantage of new opportunities is necessary to support practice transformation and reinforce community-based pharmacists' role in working with other health professionals.

Keywords: ***Community pharmacy services, interprofessional relations, pharmacists.***

1. Introduction

The field of pharmacy in the community is changing quickly. Nowadays, you can get more health services than just medicines from your community pharmacy. It only makes sense that advanced and enlarged health services in the community have resulted in more complicated methods of care delivery, offering further opportunities and requiring more work with colleagues and other health institutions.

It is widely believed that collaboration among various professions benefits patients by improving results, reducing drug errors, reducing healthcare costs and offering other positive effects. Pharmacists ensure patients are treated with the most suitable use of medicines. Because of this, subjects related to interprofessional cooperation and teaching have been highlighted, according to the objectives of the ACCP for clinical pharmacists. ACCP has created two white papers about the importance of interprofessional education (IPE), in addition to several other papers discussing topics such as quality assessment and standard medication handling. The latest publication from ACCP discussed how pharmacists in community pharmacy and ambulatory care teams can collaborate with each other(1).

To expand on the discussion, the Committee on Clinical Practice Affairs prepared this white paper to provide a complete review of how interprofessional teams help patients in community pharmacies. A brief introduction to the history of community-based pharmacy and interprofessional care is followed by sharing examples of working together, highlighting what helps or hinders this work and providing recommendations supported by well-known practice guidelines.

The Transformation of Community-Based Pharmacy

In the early 1980s, how community-based pharmacists should operate began to shift, focusing on providing better services to patients. Most community-based pharmacists felt inspired by this idea of working more closely with patients and other professionals. With new rules created by the 1990 Medicaid requirement and the Medicare Prescription Drug, Improvement and Modernization Act, community-based pharmacists had to provide more patient care services.

Many pharmacists began offering more services to the community and set up community-based pharmacy residency programs to tutor graduates for jobs focused on patients. With payer and caregiver teams aiming to provide high-quality care at a low cost, there are more opportunities for community pharmacists(2).

Interprofessional Care

It is clear from Reeves et al. and RWJF that in interprofessional care, it is necessary to organize communication among health care workers and make sure that patient care teams have the skills and knowledge needed. As a result of respect, interprofessional care values what everyone brings to the table. It creates situations where each part of the team is involved, allowing them to assist patients and their caregivers by adjusting how health care is delivered.

Thus, interprofessional care underlines patient- and family-centered needs, opening up opportunities for them and the care team to continue sharing views which is important for taking part in making decisions about care and treatment together. Working on teams also leads to greater satisfaction among health care professionals who play their part to serve each patient's unique needs.

Launched in 2009 by six organizations, the Interprofessional Education Collaborative now groups 21 associations for health workers in professions ranging from allied to public health. The rise of inclusive IPE signals a wider move towards providing team-based care. In addition, this demonstrates a growing awareness of the importance of community programs, payment methods and the health of the population for individual results, as well as where patients go for treatment. Nowadays, community pharmacies are often visited by patients for health services.

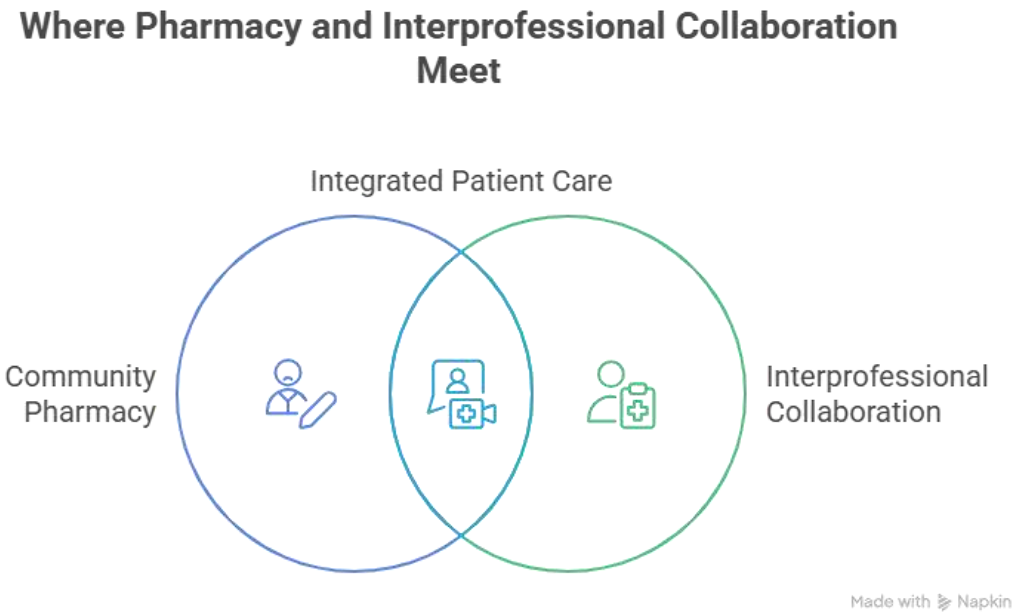

FIGURE 1 Where Pharmacy and Interprofessional Collaboration Meet

The search for literature in Medicine

This white paper's authors used MEDLINE to search for examples of cooperation between different professionals in community pharmacies. Using a health sciences librarian's advice, the search issue was developed with the MeSH subjects community pharmacy services and interprofessional relations. All in all, 36 articles from when the project began to January 2023 were examined in more detail(3).

Full English access to the study, limited medication tasks and a lack of two-way involvement were reasons for excluding the articles. Moreover, the focus on certain collaborations meant that studies that described views and barriers through surveys and interviews were not used, but the ideas and experiences found in these studies were used to suggest recommendations.

In the next step, I explored more articles by using specific community-based interprofessional collaborations in my searches. Additionally, the related MeSH terms for these papers were checked for further search phrases and I reviewed the MEDLINE results to find any suitable publications. In addition, the author team supplemented the reference list with examples of collaborations they had previously seen and looked up recent literature in MEDLINE through free text searching. There were eight cases of community pharmacies working in partnership discussed in the core references.

2. Examples of Collaboration

The types of partnerships included those held in different parts of the country and ranged from making community pharmacies provide more patient care services to creating agreements for practitioners to handle certain care services outside a hospital in the community pharmacy. The following topics in the text represent this range.

Better Organized Work in Community Pharmacies

Collaboration between community-based pharmacists and specialty clinics may help improve access to medication for people who are at high risk. As described by Burde et al., a collaboration with a community pharmacy and an Idaho FQHC helped reduce disruptions patients faced when getting HIV medications. Both the community pharmacy and the outpatient clinic targeted exchanging information so that HIV medicines were accessible to patients(4). If patients could not get insurance coverage, the community pharmacy arranged for the patient to see the FQHC's case manager to address the problem. Besides adding an interprofessional team, using the 340B Drug Pricing Program, batch processing and clinic deliveries helped improve access and patient satisfaction in other areas of the pharmacy. They concluded that the design of this model could be changed for use in other locations.

Combining various fields in MTM and medication adherence

In several articles, Lelubre et al. shared information on a joint effort among a university community pharmacy, the local infectious diseases and ambulatory care departments, to combat nonadherence to medications and lower health care expenses. An initiative involving more doctors was introduced for people with HIV and was eventually offered to anyone with a chronic condition. Through the program, patients, physicians, nurses and pharmacists could track medication adherence, as information was provided through motivational interviewing and electronic monitoring.

They finally expanded the model to introduce a program aimed at improving medication adherence for people with HIV in a public hospital and together with community-based pharmacists outside a university. It was discovered by the authors that the HIV adherence program in the community pharmacies project was possible because of: (1) frequent team meetings among experts and (2) making the program official in both places, leading to new procedures.

The authors mentioned that implementing changes to the organization or staff members takes time which in this instance was about 2 years. The research examined how the program could be sustained and services were maintained even after the study was completed. Particularly in Switzerland, the country's health care system covers pharmacists who help patients take their medication as prescribed(5).

In the same article, the researchers mention a study where community-based pharmacists provided pharmaceutical care to older adults in several cities in the United Kingdom. Community-based pharmacists were taught about caring for older adults and an IPE session was conducted between pharmacists and PCPs. There was no benefit to appropriateness of long-term medication use, patients' physical health, mental health or the risk of severe adverse drug effects, so the collaboration between community-based pharmacists and PCPs needs to be improved before wider application.

Clinical Services

In addition, several examples were noted that showed how collaborating with various professions allowed community pharmacies to provide more services to their clients. Although many were created only to meet patients' needs in a single moment, some were planned to provide regular care that met the principles of comprehensive medication management.

Walsh et al. reported on how pharmacists provided contraceptive services at an FQHC pharmacy in Oregon. A system of collaborative teamwork was set up to increase the quality of contraceptive care connected to the payment from Medicaid. All women who did not have any contraception were chosen from the electronic health record and contacted by team members at the pharmacy. They were all given information about how they could get hormonal contraception at the pharmacy. For the 5 months, 6% of eligible patients came to discuss contraception with a pharmacist. Out of all the visits, 78 percent involved the pharmacist prescribing hormonal contraception and the rest were referred to the patient's primary care provider. The authors found that organizing the service at a community pharmacy in an outpatient medical office would enable more women to receive contraceptives.

In other words, a collaboration between a local pharmacy and four local clinics in North Carolina allowed remote

blood pressure and weight monitoring for patients identified as having related health needs by their PCPs. During the program, pharmacy staff taught patients how to use a cell phone app to share their blood pressure and weight and discussed when and how often they should take the readings(6). If signs called for intervention, the pharmacist either explained reasons for the recommendations or referred the patient to a PCP with advice to possibly change their treatment. Even though certain metrics did not change, the researchers noted that offering monitoring services led by community pharmacists along with PCPs could help patients control their blood sugar and blood pressure, care for themselves and improve their well-being.

3. Key Themes and Recommendations for Interprofessional Practice

A close look at examples of teamwork in community pharmacies found that certain main themes exist, both challenging and offering opportunities to improve the practice. The themes of models of care, health technology and training have led to recommendations built on the Robert Wood Johnson Foundation's (RWJF) core principles for interprofessional practice.

Models of Care: How Their Use Is Changing and Their Sturdiness

Community-based pharmacists are now permitted to do more, from ensuring people can get their medications to supporting patient care for diseases handled in other places. According to the literature, several successful interprofessional team-based care models were developed in Switzerland, the United Kingdom and Singapore which provide useful advice for further review.

The key issue with these models is how they can be sustained financially. Much of the services are provided by grants or through saving programs such as 340B, better performance incentives or partnering with multiple health service providers. While it is possible for community pharmacists to bill insurance as medical providers, these methods are challenging to use on a large scale due to the current state of healthcare.

Health IT helps improve communication among various healthcare stakeholders.

The use cases showed that the lack of advanced technology in health care prevents full deployment of interprofessional care models. Some drug therapy management programs arranged for communications with other healthcare providers on paper, whereas others applied different online tools to find patients who should be seen(7).

Usually, pharmacists could only access EHRs and document information for patients in pharmacies inside FQHCs or outside the United States. In the United States, model changes in practice involve more back-and-forth communication with community pharmacies, yet they are not widely used yet. Difficulty in coordination and managing medications happens because there are few integrated communication systems and limited access to EHRs.

Developing the Ability to Work With Many Professionals

There is also a need for plans that allow community-based pharmacists to engage in collaboration with other healthcare professionals. In some cases, successful programs hired pharmacists with expertise in areas such as behavioral health, who then administered opioid use disorder treatment. Certain individuals got prepared training for the new service they were asked to help with.

Teaching challenges could be most clearly seen in independent community pharmacies that were not linked to colleges, FQHCs or large organizations, since pharmacists doing clinical work at these locations reported feeling less confident. It was found that among non-pharmacists who have less contact with pharmacists, there is not enough awareness about the role pharmacists have in caring for chronic illnesses.

Using Principles Set by RWJF

We've adapted the RWJF guiding principles to fit community-based care and developed the recommendations listed below.

1. Focus Collaborative Care on the Needs of Patients

- Most Americans live close to community pharmacies and Medicare recipients visit them almost every time they need to. Recommendations include:
- Assisting with the development and adoption of community pharmacy practices not only in my area, but everywhere.
- Promoting more people to use synchronization and appointments to transform drug dispensing into regular

long-term planning.

- Ensuring that metrics used in community pharmacies motivate and reward those who help patients and improve how well they get treated.
- society. Using this approach, community pharmacies change their workflow so that medication dispensing becomes a part of a long-term care plan for patients.

2. Make sure to show commitment to working with other professionals

- Community pharmacies are not usually attached within the system found in hospitals and clinics. Recommendations include:
- Identifying and distribution of examples of effective teamwork that involve community pharmacy.
- Including members of the community pharmacy in the decision-making and governing bodies of healthcare-related organizations.
- Making sure that working together as a team is a main priority in planning and support efforts in health services.

3. Include respect and professionalism as part of community pharmacy practice.

- Community pharmacists often get recognized only for their dispensing of medication, despite consistently interacting with patients and providing clinical health services. Recommendations include:
- Dedicating communication to what people interacting in healthcare have in common, to encourage partnership and mutual respect(8).
- Keeping our messaging about pharmacists unified to increase respect for the role they have in the community.
- Using healthcare models that let pharmacists share responsibility for patients' outcomes by receiving payments for value and referring people to specialists.
- Community pharmacists can now be acknowledged and recognized for helping close therapy gaps, improving how patients take their medicines, encouraging more vaccinations and impacting prescription drugs' performance metrics.

4. Ensure the team's communication is helpful for all members.

- Even though communication is important, it is difficult to accomplish often in communities as there are few opportunities for personal meetings and the technology is not always up to date. Recommendations include:
- Using technology that allows people to offer and receive information as well as read and add data to patients' electronic health records.
- When starting a partnership involving different health professionals, make sure to use and agree on certain ways of communicating.
- Using common understanding and skills developed through resources found in the Pharmacists' Patient Care Process.

4. Building Sustainable Interprofessional Practice Models in Community Pharmacy

Developing the Structure and Infrastructure of the Organization

The fifth principle advises on real changes that keep interprofessional behavior going and combat the healthcare system's habit of promoting working independently instead of together. Pharmacy leaders ought to discuss with interdisciplinary professionals on a regular basis to spot opportunities for productive collaboration that can be set up as partnerships.

Different models for referral can address the main problems preventing effective collaboration among different professions. Community-based pharmacists are able to join in managing different illnesses through using biometric screening, point-of-care testing and remote monitoring tools. While incentives for both patients and pharmacists are now offered for some of these programs, each program usually means modifying the group's organizational structure to be able to start it.

In order for infrastructure to be sustainable, responsible leaders must work together, health records need to be accessible to everyone and appropriate sharing of space should occur. Organizations must realize that delivering care through teamwork should be the standard, meaning they must allocate funds and resources to make this a practice.

Using Methods of Interprofessional Learning in Community Pharmacies

The last RWJF principle explains that effective teamwork cannot happen by accident; it requires consistent ongoing learning for all members of the team. By engaging in common activities such as vaccinating, promoting prevention and teaching patients in training centers, future doctors and nurses learn to cooperate(9).

The pilot study at community pharmacies in grocery stores proved that teams of fourth-year pharmacy students and second-year physician assistants can be successfully involved in interprofessional education. From the study, it became clear that participants had gained insight on team care and understanding who does what at the pharmacy. Learning together in these settings also benefits health professionals, as trainees from family medicine residencies and pharmacy residencies team up on caring for patients, research and improving medicine quality in community pharmacy settings.

Such opportunities let trainees understand other health professionals, improve teamwork and encourage them to cooperate. They also uphold other important values collectively such as respect, effective communication and using a variety of professional skills to serve patients.

Use of Technology in Health

The swift developments in digital health make it easier for all healthcare professionals to collaborate in pharmacies. Activating shared electronically accessible medical records, secure messaging services, telehealth and remote patient monitoring can improve how community pharmacists work with other caregivers.

With online systems for medication management, real-time data can be seen on patients' medicine lists, lab test results and doctors' notes regardless of care setting. Teams can use these systems in combination with other software to monitor a patient's health and coordinate treatment.

With mobile health applications, patients can stay involved in their health plan by receiving reminders for their treatments, observing how they feel and safely chatting with their community pharmacist. If integrated with these monitoring devices, these applications give useful information for doctors and allow them to begin necessary measures from a suitable health expert in a timely manner.

Now, algorithms powered by AI and predicting future outcomes will help in recent efforts to involve both pharmacists and physicians to better care for high-risk patients. They can review patients' drug prescriptions, insurance information and test results to organize outreach and manage their medicines.

Value-Based Models

Because of fee-for-service, community pharmacists and other healthcare providers have found it hard to collaborate meaningfully. Value-based payment models create chances to guide payment systems towards improved teamwork and shared success in meeting patients' health needs.

When rewards are given for reaching quality standards in areas managed by medicine (e.g., diabetes and blood pressure), primary care practices are encouraged to team up with community pharmacies. Some Medicare Advantage organizations have started working with community pharmacies to identify problems, increase quality and improve their Star Ratings.

Another option for integrating community pharmacists appears to be through Accountable Care Organizations (ACOs). Improved use of medications allows community pharmacies to create sustainable models for offering new services, making their value clear to ACO leaders. Those who adopted pharmacists early on highlighted that there was a drop in emergency room visits, hospitalizations and healthcare-related costs.

In some places, alternatives to traditional payment only for prescribed amounts are rising, as state Medicaid programs pay a monthly fee for medication management services that community pharmacists provide to their most at-risk patients. Usually, these programs need standard collaborative arrangements with family care providers and clinical activities recorded in documents available to everyone.

Integration of Public Health into Population Health Management

Since there is a community pharmacy in almost all areas, they can easily collaborate on population health work and public health programs. Because of the pandemic, community pharmacists stepped up in supporting emergency

response by testing, offering vaccines and handling medicine needs, creating ways to collaborate with various healthcare experts.

In addition to fighting pandemics, many community pharmacies now participate in promoting opioid overdose prevention, supporting those who wish to stop using tobacco, helping to stop the spread of HIV and ensuring more people get vaccinated. In most cases, these programs rely on coordination with local public health, primary care and social service organizations to address all aspects of challenging health disorders.

With support from community pharmacists, population health management programs oversee medications for high-risk patients, target programs for reducing health inequities and provide additional access to preventive health services in communities with lower resources. Cooperation between pharmacies and health management systems helps uncover areas in a community where care is lacking and allows for taking group action to solve those issues.

Collaboration between pharmacies and organizations in local communities opens up more opportunities to improve health and address factors that affect the use of medicines. Apart from healthcare providers, these efforts include several community resources such as housing offices, food programs and support for transportation.

5.Conclusion and Future work

Drawing Together Ideas for the Future

Because community pharmacy services now require more complex models, there are greater opportunities for community pharmacists to collaborate with other healthcare professionals. The paper highlights Community pharmacies across the United States and worldwide have shown progress in the use of interprofessional models over the years.

The RWJF guiding principles have been valuable in helping to tackle the issues and problems that community pharmacies face. Communities and teams can help shape practice transformation by focusing on patients, supporting leadership, appreciating community pharmacy, removing communication and technology delays and setting up valuable organizational structures, as well as ensuring that interprofessional learning is practiced.

Even though advances have been made, it is still necessary to incorporate community pharmacists into interprofessional teams. This paper has highlighted good examples; however, many of them are only used in certain locations or workplaces. For more models to work and be adopted, it will be necessary for the public, experts and legislators to keep advocating, learning, doing research and changing policies.

Advances in research are needed to improve practice

There are significant missing points in the literature that require attention from researchers. While the efforts of community pharmacists in collaborating with other professionals are not fully covered in existing research literature, there is a need for more solid research and publishing to highlight their advancements.

There are several reasons why more research has not been done on interprofessional practice in community pharmacy. They consist of individual issues like not being given adequate research time, insufficient resources and weak support from the organization, due to the way community pharmacies mainly function by dispensing medicine. Partnering with schools and universities that can give research help, advice and the necessary infrastructure could be a solution to these problems.

Future scientists should design standard tools for assessing community pharmacies that join forces, discover best approaches to sharing digital systems across care settings, weigh the benefits of collaborative healthcare on payment plans and learn about the satisfaction of patients and healthcare teams using interprofessional community pharmacy services. For research to help implementation in community pharmacy, studies should consider the real settings in which pharmacists work.

Changes in Policy and Payment

For interprofessional practice to develop in community pharmacies, it will depend on policy adjustments being made at federal, state and organizational levels. If pharmacists are included in provider legislation, they could earn reliable payment for new services offered to patients in community settings.

If scope of practice laws were reconsidered, community pharmacists would be allowed to work together with healthcare providers on a broader range of issues. Adopting standard qualification tests for pharmacists performing clinical duties would guarantee high service quality and gain other doctors' trust.

Methods of paying for healthcare must be flexible to encourage teamwork with community pharmacists. When clinical outcomes are shared among care team members, it encourages them to collaborate and tackle the problems caused by the fee-for-service model. Creating new ways of paying for comprehensive medication management may make it easier for community pharmacies to switch to clinical roles.

Technology and the Ability to Work Together

Effective communication and care coordination in community pharmacy will only happen in the future when technological problems are overcome. Efforts to create and introduce electronic health records able to connect pharmacies and medical offices should be given priority by technology providers, the government and healthcare institutions.

If information exchange is smooth, community pharmacists would be able to see full medical histories for clinical decisions and other health staff could review the treatments they provide and outcomes. Having set guidelines for medication, assessments and care planning would improve information sharing among those taking care of a patient.

Improvements in artificial intelligence, forecasting methods and decision support help identify patients who stand to benefit from medication management services provided by different health professionals. Using these systems in pharmacies could make it possible to address high-risk patients' needs and save pharmacists time and effort.

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Conflicts of interest

The authors have no conflicts of interest to declare

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