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Improving Collaboration between Pharmacists and Physicians

Paras Patel

Abstract: Physicians and pharmacists have differing but complementary roles that can optimize patient care when structured effectively. Unfortunately, these two professionals are not collaborating well enough, as patient outcomes, especially in relation to medication adherence, continue to decline. Coordinated care of patients can improve by expanding bidirectional communication and sharing additional patient information with each other. It will be necessary to continue to promote collaborative care in the educational and training stages of these professionals' careers to build trust and understanding of professional scope. Ultimately, the healthcare infrastructure will have to continue to progress to make collaboration more available and valuable to physicians and pharmacists.

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A growing issue healthcare professionals face today is negative patient outcomes due to poor medication adherence and lack of patient understanding about their treatment plan. In 2010, 3.8 million inpatient visits and 3.3 million outpatient visits were related to serious preventable medication errors, resulting in a cost of \$21 billion.¹ Moreover, a baseline review of the District of Columbia's VA medical center revealed that close to 75% of discharge instructions had medication discrepancies.¹ Dr Jitesh Patel, a community pharmacist in Maywood, Illinois, estimates that only 10-20% of his patients are fully compliant with their medication.² The large majority who struggle with medication adherence often do not understand the severity of their disease state and the negative results that will ensue if they do not take their medication regularly.² Physicians and pharmacists have a responsibility to make sure their patients are comfortable with their treatment plans, but the disconnected communication between the two professionals can make this difficult.

The physician's role is to coordinate patient care and integrate patient data to create a diagnosis and treatment plan.³ Collaboration with a pharmacist can supplement and reinforce patient care because pharmacists use drug education and monitoring to ensure safe and effective medication use.⁴ A history of poor education standards and the perception of pharmacists as drug-pushing businessmen continues to affect the understanding physicians and the community have of pharmacy practice. Additionally, the expectation of physician omniscience by patients has forced a culture centered on self-reliant and independent physicians.⁵ This culture is changing but still might make collaboration with pharmacists unattractive. However, unsafe and incorrect medication use is increasing, and it will be necessary to expand collaborative efforts between primary care physicians and community pharmacists to improve patient outcomes.

Dr Patel believes his success in collaborating with physicians is largely because the main physician he works with practices in the same clinic as him.² For example, Dr Patel says one of the easiest ways to see if a patient is adhering to his or her medication is to check if they are picking up refills on time. If it becomes evident that a patient is not taking their med-

ications as recommended, Dr Patel can directly consult the physician. The physician will then know if there's an adherence issue and can address this problem during the patient's next visit.² When communication occurs exclusively via telephone or fax, there can be frustrating delays for both parties.² Since these professionals have easy access to each other and have developed a symbiotic relationship, they are quickly able to identify and solve patient problems. While beneficial, this type of coordination is often lacking.

One strategy to address poor physician-pharmacist coordination can begin at the educational and training stages. Keijsers *et al.* found that although both pharmacy and medical students have similar understanding of pharmacology, pharmacy students often display stronger basic pharmacology knowledge while medical students are more competent at writing prescriptions.⁶ Based on these findings, physician discomfort with basic pharmacology may result in medication errors, such as failure to identify drug-drug interactions when prescribing. Likewise, the inability to identify prescription errors by the pharmacist could potentially undermine the checks-and-balances system. In a fully functional system, the pharmacist should be able to effectively analyze patient data and the prescription written to determine if they match appropriately. Combining undergraduate courses on pharmacology or expanding to joint clinical pharmacology training for both professionals could provide an opportunity to minimize the knowledge gaps. Each set of students has strengths and weaknesses, so collaborative learning would be complementary.⁶ Furthermore, early communication between future physicians and pharmacists would be initiated, showing how the other could provide value in patient care.⁶

Rutgers University sees value in changing the educational model, as they are the first institution to offer a combined PharmD/MD curriculum. Here, pharmacy students continue their education beyond a Doctor of Pharmacy degree (PharmD) to earn a Doctor of Medicine degree (MD) as well.⁷ While this is a more extreme example, it demonstrates the possibility of pharmacy and medical schools working together to provide the highest level of pharmacology training to their students. As professionals who understand both sides of patient care, these experts

will be responsible for leading policy change to optimize collaboration between the two professions.

Many of the institutions that have emphasized inter-professional education focus more on teambuilding and professional exposure. Rosalind Franklin University of Medicine and Science has created a course with a didactic, or instructional, phase, service learning, and a clinical component that teaches collaboration between health professionals.⁸ The didactic and service learning components are relevant in building comfort and role specification between healthcare students, but the real value is in the clinical practice. Here, students apply didactic knowledge to actual patient care, and they are able to learn how to solve real problems together.⁸ Real life learning experiences will better translate to professional practice. The University of Florida has implemented an Interdisciplinary Family Health course that asks a team of medical, pharmacy, and nursing students (among others) to take a family's health history and address the health issues together.⁸ Instead of having the students learn about other professionals exclusively in a didactic format, the real life practice instills deeper understanding about interprofessional teamwork by teaching students how to work through conflict together.

In the technology industry, improving teamwork is crucial to remaining on the cutting edge of innovation. In a study done by Google, they found that a team will function most effectively when members feel trusted to take risks, can count on others, have clear goals, and consider their work relevant.⁹ Close proximity has fostered successful collaboration between physicians and pharmacists in the ambulatory setting and some community pharmacies, like Dr Patel's, but the lack of a strong infrastructure in the community environment that encourages bidirectional professional communication presents challenges.¹⁰

Persistence of nonadherence to drug therapy is troubling, but there is strong evidence that by working together, physicians and pharmacists can improve outcomes and save costs.¹² A cultural change has already begun; pharmacists are gaining the trust of other professionals and patients, but more progress still needs to be made. Making sure physicians and patients understand the qualifications and knowledge that a pharmacist possesses is a key part of earning trust, as many people do not understand that pharmacists are drug experts.

Physicians are hesitant to share necessary patient information, but they have expressed interest in collaborating more with community pharmacists.¹² If a community pharmacist gains access to a patient's health history and basic diagnostic data, drug recommendations to physicians and counseling of the patient will be more specific and relevant. An effective bidirectional communication system will need to be implemented universally for effective collaboration to occur.¹³ Interestingly, many physicians, and even more patients, are against this reform.¹² Physicians are concerned that expanding pharmacist counseling could contradict the information they provide, and patients fear breaches in confidentiality if electronic data is shared with community pharmacists.¹² However, one general practitioner, Matthey Lockyer, believes that health data is actually safer than the information an average consumer volunteers to banks and

travel sites on the internet.¹² Pharmacists and physicians will have to practice from a more level playing field and develop trust in each other's skills in order to effectively collaborate.

There are several strategies that pharmacists can use to build strong professional relationships with physicians. Pharmacists need to initiate face-to-face discussions with physicians to develop a personal relationship.³ Defining patient care goals and explaining specific clinical services that the pharmacist can complete for the physician are also crucial because some physicians do not know the pharmacist's scope of practice.³ Physicians generally want to be the leader in their patients' care, so pharmacists need to accept a supporting role and focus on the drug therapy aspect.³ The best way to gain a physician's trust is to provide consistent, outcome-improving drug therapy recommendations, but the limited patient information shared with pharmacists makes this difficult.³

One pharmacy specialty is already seeing the benefits of collaboration.¹⁴ In practice-based pharmacy, pharmacists work comprehensively with general practitioners to resolve day-to-day medication issues.¹⁵ By utilizing their full scope of practice, pharmacists are helping to relieve pressure on overstretched physicians in England.¹⁵ Also, patients appreciate the additional time they can spend with a healthcare professional.⁴ Even the extra five minutes spent with a pharmacist can promote better patient understanding about how and why they need to adhere to their treatment plan.

A barrier in the implementation of practice-based pharmacists is the added cost.¹⁴ This issue can be overcome by allocating responsibility to community pharmacists who are already involved in the normal process of patient care. However, the added responsibility will require additional time investments by already busy pharmacists resulting in fewer prescriptions being filled and lower revenue. In order to provide an incentive for pharmacists to spend extra time with patients, it will be necessary to reimburse. This is similar to Medication Therapy Management, which includes specialized health services, such as medication therapy reviews, pharmacotherapy consults, and immunizations that pharmacists can bill for.¹⁶

It is crucial to show physicians and patients that pharmacist intervention is effective and persuade insurance companies and government agencies that the cost is worth incurring. A study with almost 60,000 patients showed that intervention by community pharmacists significantly improved medication adherence.¹⁷ Looking specifically at statins and diabetes medication, a payer with 10,000 members could potentially save \$1.4 million over a year based upon improvements in adherence.¹⁷ Insurance companies will be resistant to the added upfront cost, but the long-term savings due to improved outcomes needs to be emphasized.

Physicians in the United States are becoming overworked as the number of patients covered by insurance rises and physician employment stagnates. To combat this, it will be crucial to fully utilize alternative healthcare professionals. Physician Assistants (PA) have already made significant progress in orthopedics. They are transitioning into more autonomous roles

in surgery, allowing surgical slots to be used more effectively. Consequently, surgery specialists are available for patients who need them the most.¹⁸ However, even if positions for entry level medical residents increased by 500 annually and we combined that with the current growth of PAs and Advance Practice Nurses (APN), that would still leave the aggregate per capita supply of advanced clinicians (Physicians, PAs, and APNs) at approximately 15% less than what the demand will be in 2025.¹⁹

Physicians will need to become more focused on providing services that only they are qualified for and allow other healthcare professionals to deliver the rest.¹⁹ This is where pharmacists can increase their value. Due to limited patient consultation time, physicians often cannot conduct a medication review.¹⁴ Dr Tony Avery, professor of primary healthcare at the University of Nottingham, believes that medication review can be delegated to pharmacists in the community setting, and then pharmacists can share relevant information with the physician.¹⁴ Dr Patel helps the physician in his clinic by teaching diabetes patients how to use management tools.² This can save the physician several minutes per visit and allow them to focus more on patient assessment.² As aforementioned, in order for this to be effective, pharmacists need to be trusted by physicians to gain access to relevant patient data.

One purpose of the Affordable Care Act was to create a system where professionals could focus on outcomes first. If pharmacists are provided the tools to work more effectively with patients, it leads to better opportunities to improve long-term costs and outcomes. Building trust and understanding between physicians and pharmacists is the crucial first step to any future structural changes in healthcare. The educational initiatives many health professional schools have begun are valuable in helping professionals understand the roles of others. Further collaborative clinical training needs to be emphasized to provide students with real problems and team-based solutions. Pharmacy education has to continue to progress to the point where community pharmacists feel comfortable assessing patient information and performing clinical services. In practice, pharmacists can build rapport by engaging in regular face-to-face interactions and providing valuable recommendations to physicians. Physicians will have to be willing to delegate informational power to community pharmacists to utilize drug expertise that they may not have. Although physicians will always be the leader of the patient's care and the ultimate decision-maker, practicing with each professional as an equal is the starting point to improve interprofessional relationships that are essential to optimizing patient outcomes.

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