

Office-Based Pharmacy Practice: Past, Present, and Future

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Eugene V White practiced pharmacy for nearly 50 years. In 1960, he opened the first office-based pharmacy practice in the US in Berryville, Virginia.¹⁻⁴ The major goal of the office-based practice was to provide patient-oriented care. The practice evolved from Dr. White's observations in the early 1950s of how pharmacists practiced in the community setting. He shared the views of several others that the unprofessional methods and commercial practices in the typical "drug store" of the 1950s were a repugnant revelation; they all struck him as unnatural and not in the best interest of the patient.^{5,6} The mechanics of the office-based practice are discussed elsewhere.¹⁻⁴ The purpose of this paper is to discuss the past, present, and future of office-based pharmacy practice through the lens of one of the authors. As such, this paper is organized as follows. First, the state of community pharmacy practice during the 1950s, 1960s, and 1970s is described. Next, the evolution of clinical pharmacy during this time period is discussed. Finally, a future model of pharmacy is described that greatly increases the role of the pharmacist as the pharmacotherapy expert among healthcare professionals.

Community Pharmacy Practice After World War II and Clinical Pharmacy

According to Sitkin and Sutcliffe,⁷ a profession's status and social value are often increased or decreased at the benefit or expense of another. Pharmacy's status and social value were never higher than during the 18th, 19th, and early 20th centuries when apothecaries were recognized and valued sources regarding the treatment of patient maladies.⁴ The apothecary was considered indispensable to the

physician because of his/her skills and knowledge related to the art of compounding. In the early 1900s, physicians depended on the pharmacist to compound prescriptions, and this uniqueness of craft was the basis for being included among the professions. Pharmacists meticulously prepared and compounded their prescriptions for hand made suppositories, emulsions, tinctures, tablets, and powder-filled gelatin capsules, to name a few. This dependency often created a close relationship between the pharmacist and the physician—one of mutual respect, admiration, and friendliness.

After World War II, the pharmacy landscape changed drastically. The pharmaceutical industry increased its ability to mass produce prefabricated medicines. As a result, the close relationship forged between the pharmacist and physician vanished from the scene. Further complicating the pharmacist's role were edicts from the 1922 and 1952 Codes of Ethics forbidding the pharmacist to prescribe or to discuss the therapeutic effects or composition of prescriptions:

The pharmacist does not discuss the therapeutic effects or composition of a prescription with a patient. When such questions are asked, he suggests that the qualified practitioner is the proper person with whom such matters should be discussed.⁸

Despite the restrictions imposed by the Codes of Ethics, the concept of clinical pharmacy may first have been discussed in 1945 by L Wait Rising, a professor at the University of Washington College of Pharmacy, who compared training in clinical pharmacy with cadet training.⁹ Although both the American Pharmaceutical Association (APhA) and the National Association of Boards of Pharmacy attempted to define pharmacy, clinical pharmacy, while commonly viewed as being patient oriented, was difficult to define because its meaning changed according to the ongoing developments of pharmacy practice.¹⁰⁻¹² However, this patient-oriented view conflicted with the description given of

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clinical pharmacy in “The Washington Experiment,” which reported “there was to be no contact with the customer.”¹²

Concurrent to this time period, self-service mass merchandising entered the community pharmacists’ domain along with corporate pharmacy and the expanding chain drug stores. Independent pharmacists suddenly found themselves attempting to survive by combating this new industry on its terms: lowest price rather than competency. In 1971, Francke¹¹ stated: “It appears to me that organized pharmacy has essentially abandoned community pharmacy.”

During the 1980s, pharmacy benefit managers entered the scene and proliferated to such an extent that they gained control of the prescription insurance industry. By the time Dr. White retired in 1998, community pharmacists’ compensation was reduced to as little as \$1.50 on each third-party prescription!

Despite the myriad of obstacles to a patient-oriented pharmacy practice (ie, Codes of Ethics, prefabricated medicines, mass merchandising of pharmacy, definition of clinical pharmacy), numerous pharmacists throughout the US practiced patient-oriented pharmacy:

In independent and chain pharmacies alike, many pharmacists retreated behind their prescription counters and concentrated on increasing their productivity and profits, continuing to treat their patients as mere customers. Others, like the visionary Eugene V White, saw salvation in an office practice of pharmacy that promised to separate professional services from the commercialized atmosphere that had stultified pharmacy practice. White abandoned the unrelenting, profit centered service value that characterized much of pharmacy practice and adopted a more professional, patient centered service value, one that utilized patient prescription records and stressed the interpersonal relationship between pharmacists and their patients. White’s emphasis upon a patient care value in pharmacy practice made a strong and lasting impression on practitioners across the nation, one that helped stimulate a transformation of the value system of the profession itself.¹³

Along with Eugene White, other notable practitioners during this period included Ralph S Kuhn¹⁴ and Carl F Emswiller.¹⁵ During the next few decades, pharmacists numbering in the thousands departed from their counting trays and began directly interviewing their patients for pertinent and personal information. (Although no record was kept, during the 1960s and 1970s, Irv Rubin of *Pharmacy Times* would periodically announce how many pharmacists had adopted the patient profile record). Initially, these interviews were hand typed, but eventually they were entered into computerized patient medication profile records. It took several decades, but today all pharmacy practitioners are required to use the patient medication profile record.

There were many catalysts for these pharmacists’ shifting to a more patient-oriented practice. A major one may have been that the proliferation of medical specialists in the 1950s resulted in many patients being cared for by more than one physician. For example, on many occasions during this time, Dr. White observed (mostly by accident) that many patients were concurrently taking the same drug

(although perhaps different brands) that had been prescribed by 2 physicians. He suspected this was occurring often. There were increasing incidents of medication being dispensed to which the patient had demonstrated a previous sensitivity. Despite what the 1952 Code of Ethics stated, Dr. White was growing increasingly frustrated by being forbidden to advise patients. After much thought and reflection, he independently conceived the idea of developing a family prescription record system. It was a clear, accurate, concise, and comprehensive record of vital family data, idiosyncrasies, chronic disease conditions, and a continuing medication history of the pharmaceutical services provided. Accordingly, on April 9, 1960, he began to interview his patients to create the first patient medication profile records (then referred to as the Family Prescription Record System) that, to his surprise, would later become part of the Omnibus Budget Reconciliation Act of 1990 (OBRA ’90).¹⁶ The new patient medication profile record was slowly accepted by practitioners, requiring several decades to reach an adoption rate of almost 90% prior to the adoption of OBRA ’90.¹⁷ It took several decades, but today all pharmacy practitioners have adopted the patient medication profile record.

Although much more needs to be done, the pioneering efforts of Dr. White played a significant role in beginning to shift pharmacy from a product-oriented to a patient-oriented profession. Eventually the new function attracted world-wide attention. In our opinion, if one defines clinical pharmacy as patient-oriented practice, the office-based practice was the birth of clinical pharmacy because it was patient oriented and a radical departure from the contemporary product/profit orientation that prevailed during this time period. It allowed pharmacy to regain its status as a profession, and many pharmacists became the most knowledgeable health professional specialists in the field of pharmacotherapy. In our opinion, the office-based practice is the foundation of the clinical pharmacy movement and was the turning point in transforming the profession from product orientation to patient orientation. This was a major breakthrough in the 20th century (Appendix I)!

It was disappointing that some in academia paid little attention to the new concept of the patient medication profile. Francke echoed Dr. White’s disappointment:

It was the narrow provincialism of pharmaceutical educators themselves which held back the development of the concept for more than a quarter of a century.¹⁸

It appears that several colleges and schools of pharmacy were forced into clinical pharmacy for 2 reasons. The first was the passage of the Congressional Comprehensive Health Manpower Training Act of 1971 (Public Law 92-157), which provided federal support only to colleges that “increased emphasis on and training in clinical pharmacy.”^{19,20} The second reason revolved around changing ac-

creditation standards from the American Council on Pharmaceutical Education.

Although it took 9 years, the final barrier to the development of clinical pharmacy fell in August 1969 with the revision of the American Pharmaceutical Association Code of Ethics, opening new and exciting professional challenges to the pharmacy profession. During the early 1960s, practitioner-based experiments using patient drug profiles for therapeutic review, monitoring, and evaluation in the community setting, combined with the concept of the pharmacist as a therapeutic consultant, created a firm foundation for clinical pharmacy practice in the hospital or community setting.

What remained was for schools and colleges of pharmacy to provide an intellectual basis to community practice. Francke²¹ argued that “there must be a concerted, nationwide effort on the part of colleges to train pharmacists in clinical practice.” Fortunately, by the late 1970s, opposition began to wane as faculty at schools and colleges of pharmacy realized that they had nothing to fear from their clinical brethren since both were working for a common goal: to improve the professional programs in pharmacy.

The Present State of Office-Based Pharmacy Practice

The term pharmaceutical care was used in the literature by several authors in the 1970s and 1980s to describe medical- and patient-oriented care. The definition was significantly expanded toward the end of the 1980s and then became the mantra and mission of both schools of pharmacy and pharmacy practice. It revolved around a 9 step process of pharmacotherapy care in which pharmacists and patients shared a covenantal relationship, with both parties responsible for patients’ drug-related outcomes.^{22,23} Pharmaceutical care has been incorporated into virtually every pharmacy organization’s mission statement. Unfortunately, 30 years after pharmaceutical care was first stated in the literature and more than 15 years after Hepler and Strand²⁰ expanded the term, pharmaceutical care is still not practiced optimally in the typical community practice setting. Despite the passage of OBRA ’90, which requires an “offer of counseling” be extended to patients, in our opinion, many pharmacies are not enforcing the requirement. Based on personal and anecdotal evidence, patients often are asked to sign a sheet of paper verifying a declination of the offer to counsel. One of the authors recently filled 3 prescriptions in 3 different states with no verbal offer to counsel him. Rather, a clerk asked him to “sign here” in order to pick up his prescription. When questioning the reason for signing, answers given ranged from “for insurance purposes” to “to verify that you picked up the medication.” Because of the volume of prescriptions dispensed and the lack of reimbursement for cognitive services in the typical

community pharmacy, we do not blame pharmacists, but rather the environment in which many pharmacists practice (ie, it makes patient-oriented care very difficult). Most pharmacists, like individuals in other professions, gravitate toward what is rewarded in organizations.²⁴ Consequently, millions of dollars worth of preventable drug misadventures may be continuing.²⁵

Research has corroborated these observations. In an attempt to determine the extent to which pharmacists are patient oriented, researchers have primarily used mail surveys and disguised shoppers as the method to study pharmacist–patient communication. The mail surveys can be grouped into one of the following categories: patients who have recently received prescriptions or pharmacist self-reports regarding counseling behavior. Consumer surveys have found that 45–60% of pharmacy clients receive verbal counseling by pharmacists, primarily concerning how to use their medication.²⁶ However, in a comprehensive review of the last quarter of the 20th century of pharmacist–patient literature, DeYoung²⁷ concluded that there had not been much improvement during this period of time.

The Future of Office-Based Pharmacy Practice: A New Model

This model is designed for highly skilled pharmacists who truly embrace patient-oriented care and are capable of initiating and monitoring their patients’ drug therapy regimens (eg., those with specialized residencies and/or fellowships). We realize that, at present, this represents a minority of practicing pharmacists but are hopeful that, over the coming decades, more and more pharmacists will be equipped with the requisite skills to practice the heretofore proposed office-based pharmacy model.

As early as 1954, Eugene White believed that physicians should diagnose patients, and pharmacists should initiate and monitor patients’ pharmacotherapy regimens.

I predict in years to come medical progress will be so rapid and so complex, that it will be impossible for the physician to keep abreast of both the latest diagnostic techniques and the latest drugs, their uses and dosages. At that time, I believe the physician will indicate the diagnosis and the pharmacist will be responsible for selecting the correct drug and dosage. It will be impossible for the physician to continue in the dual role of diagnostician and prescriber.²⁸

According to the incoming APhA president, Bruce Canaday, medication order fulfillment can be done (or soon will be done) from anywhere in the world.²⁹ This, along with continued improvement in robotics and automation, may further diminish the viability of pharmacists’ survival based on the distributive function of dispensing drugs. We believe that a radical paradigm change must eventually occur, whereby a significant number of highly skilled community pharmacists become physician associates at the point of diagnosis, working side-by-side with

physicians and being compensated for their pharmacotherapy expertise rather than only for their dispensing expertise. One way to do this is to design a model of practice that allows the most highly trained pharmacists to do what they do best: provide pharmacotherapy screenings to patients and initiate and monitor patients' drug therapy regimens.

This can be achieved by using highly trained certified pharmacy technicians to dispense patients' medications under the auspices of a pharmacist in a prescription facility located in a medical center complex. The most highly trained pharmacists would have time freed up so that they could work alongside physicians. Specifically, the physician would diagnose the patient while the pharmacist associate provides a pharmacotherapy screening and then initiates and monitors the patient's drug therapy regimen. Because of the increased workloads of physicians and because of the greater complexity of drugs related to the fairly new field of pharmacogenomics, it is increasingly likely that physicians will be unable to keep up with the proliferation of new medications. We think the type of pharmacist attracted to this model will be inclined to do so.

Pharmacy educators are beginning to accept the need to train students in the fields of pharmacogenetics and pharmacogenomics. A recent nationwide study of pharmacy schools and colleges regarding instruction in pharmacogenomics and pharmacogenetics revealed that, although most schools do not cover the subject matter in great depth presently, most do provide some instruction and the vast majority plan to increase instruction in the coming years.³⁰ Based on this assessment, the most highly skilled pharmacists could help physicians immensely. By having 2 experts doing what they do best at the point of diagnosis, everyone wins (including society). Patients win because they can be confident that 3 experts are attending to them in their areas of expertise (ie, physicians to diagnose, pharmacists to initiate and monitor drug therapy, certified pharmacy technicians to dispense the proper medication). Thus, there is a significantly increased probability of the patient receiving an accurate diagnosis and being prescribed and dispensed the appropriate medication. Physicians win because they would be able to see many more patients per day related to their area of expertise.

For this model to succeed, it is critical that physicians are not harmed economically. This can only happen if pharmacists are reimbursed privately or via third parties for the value they provide to patients. Although the logistics of a specific reimbursement model for pharmacists is beyond the scope of this article, pharmacists must be fairly compensated. For example, the Centers for Medicare & Medicaid Services' formal recognition of pharmacists as providers of medication therapy management services holds some promise. Pharmacists also win because they are able to truly embrace and practice patient-oriented

care. In addition, by separating these pharmacists from the dispensing function, their professional status takes a quantum upward leap. To the extent that pharmacists will do a better job initiating and monitoring drug therapy outcomes, it is probable that the nation's healthcare costs will be reduced; therefore, society wins and validates compensating the pharmacist.

Why would physicians wish to abdicate part of their present role and become part of a collaborative physician/pharmacist team? Because the synergy created by this team would allow the sum to be greater than the parts. Theoretically, if physicians are primarily diagnosing patients and pharmacists are primarily initiating and monitoring drug therapy outcomes, they can collectively see many more patients than the physician alone can (and hopefully do a better job since they are working in their respective areas of expertise). In addition, as discussed above, pharmacists must be reimbursed for their services just as physicians in medical practices are reimbursed today. This would create a win-win situation for both health professionals. Also, the physician/pharmacist synergistic relationship may result in increased patient satisfaction as well as increased pharmacotherapy adherence, which may ultimately reduce the burgeoning cost of emergency department visits resulting from nonadherence to drug regimens and other drug misadventures.²⁵

Within this model, pharmacists would not only regain control of compensation for their professional services, but would also receive compensation for their pharmacotherapy screening services regardless of whether or not medication was prescribed! Similar to practitioners in other professions, pharmacists would receive compensation for "time and talent," whether it is a 5 minute consult or a major pharmacotherapy education session.

For the proposed model to succeed, several things must happen. First, laws must be passed that give pharmacists prescribing privileges. With this privilege comes the concomitant responsibility of schools of pharmacy to provide a very high level of education and training. In addition, many more pharmacy graduates will need to further their education through residencies and/or fellowships. We are amazed that nurse practitioners and physician assistants have been successful in procuring prescription privileges, but pharmacists have not. Also, boards of pharmacy must reexamine pharmacy technician laws to allow a greater number of technicians per pharmacist. As part of this examination, pharmacy must improve training and standardize technician education. The present certified technician program is a good start but must be expanded. Overcoming the chain drug store reticence toward the model will be a challenge, although board of pharmacy influence might ameliorate this. The model predicts that, as more and more pharmacists gain the requisite skills required by the model,

the major chains will eventually play less of a role in dispensing than they do now (although they would still be major players in many smaller cities). By eventually having many more highly skilled pharmacists working as pharmacotherapy experts in medical practices, much of the dispensing function can be accomplished through certified pharmacy technicians under the auspices of pharmacists. This would allow economies of scale to occur and reduce the pharmacist shortage pertaining to dispensing.

Perhaps the biggest obstacle to the model's ability to attract a significant number of highly skilled pharmacists is pharmacists themselves and their resistance to change. If a new pharmacist fresh out of pharmacy school can command a 6 figure salary adhering to the present reward system of community practice (ie, dispensing prescriptions), why should he/she really change? It may take a catalyst to realistically break down this resistance to change. Whether or not that catalyst is automation, the relaxation of laws regarding certified pharmacy technicians, remote medication order fulfillment, some combination, or something else is open to debate.

Our vision of the future of pharmacy would not occur overnight. Initially, as physician/pharmacist pioneering teams demonstrate the viability of this innovation, more and more teams would evolve. It is hoped that physicians would see the advantages of this model and view it as a win-win situation. As the number of pharmacy schools increases and they produce greater numbers of pharmacists, we are hopeful that a greater percentage than at present will pursue residencies and fellowships and increase their pharmacotherapy expertise to enable fulfillment of the proposed model. Those who do not will find employment in other practice settings, including community and hospital. Pharmacists who choose to practice within the physician/ pharmacist team will be compensated via third-party reimbursement and their presence should help maximize the medical practice's profitability. Freeing the physician from involvement with medications allows a new physician/ pharmacist relationship, regardless of loci of practice, and at last, the pharmacist would no longer be isolated from the physician.

Over the past several decades, many authors have expressed dissatisfaction at the slow evolution of patient-oriented pharmacy.^{15,31,32} We are encouraged by both the present medication therapy management programs and a recent manpower report which revealed that, in 2004, pharmacists spent 32% of their time advising patients.³³

Summary

These manifestations described here are necessary first steps in the expansion of pharmacy practice. We are optimistic that the future of the office-based practice will include highly skilled pharmacists working alongside physicians at the point of diagnosis in a physician/pharmacist re-

lationship. As discussed, several changes must occur for this to become a reality. What are some of the catalysts for this change? Perhaps one catalyst is, as Dr. Canaday stated in his inaugural address, "Because if we don't [change], we could become extinct, with our roles in the health care system replaced or eliminated."

Eugene V White PharmM SDr maintained an office-based pharmacy practice in Berryville, VA, for 38 years.

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Appendix I. Development of the Medication Profile Record

Notarized documents proving the historic development of the medication profile record are available in the Archives of the American Institute of the History of Pharmacy. Many people/institutions over the decades since 1960 have publicly announced in the pharmacy literature that each was the originator of the clinical pharmacy movement! If, in their definition of clinical pharmacy, the parties cite the use of the patient medication profile record (which is, in fact, the basis of the patient-orientation concept, started April 9, 1960), then they cannot logically claim to be the originator.

In July 1999, the pharmacy office was dismantled from the 1 W. Main Street, Berryville, VA, location and reconstructed at the Bernard J Dunn School of Pharmacy, Shenandoah University, Winchester, VA. It was dedicated to the university as a museum on October 24, 2000. Every patient interviewed from April 9, 1960, until February 28, 1998, has his/her medication profile record stored and preserved in the museum cabinets, under lock and key, comprising 38 years of the most extensive private patient compilation in pharmacy history.

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