



Pharmacy and Dentistry Relationship to Improve Patient Experience

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Abstract

1. Introduction

The most frequent set of healthcare visits are dental ones, as 60% of all healthcare-related visits are to dental clinics. Patients might attend dental clinics with undiagnosed diseases and ailments, and occasionally dentists might uncover some medication-related complications like pain, bloating, gastric upset, psychosis, confusion, etc. Pharmacy and dentistry professions collaboratively aim to enhance patient experience. Medications for chronic ailments like hypertension, anxiety, diabetes, rheumatic disease, etc. are prescribed and over-use might lead to severe complications. Non-compliance and changes in medications are common after patients move to hospitals, and thereby change of medication can lead to disease flare-ups and serious complications. Health screening prior to surgery and medication review and re-counsel by education of side effects and drug interaction are vital to enhance patient safety and also preventive aspect of care. Dentists alone have to ask about medication history for 100+ patients so the work burden might make inefficiency and affect patient safety. Pharmacy and dentistry interactions or collaborations are simple but very effective to enhance patient experience.

Patients coming to a dental clinic have chronic ailments and those medications could lead to dental complications by diminishment of saliva flow, alter nerve sensors, slow alveolar bone formation, increase bleeding tendency, etc. Tooth extraction, deep scaling, and minor surgery are common practice in dental clinics and drugs used in all these procedures can act on the above-mentioned medications. Referral and subsequent medication review by pharmacists of these patients could prevent complications, re-educate patients on medications use, and should improve oral health care outcome. The collaborative care was carried out at dental out-patient department of a tertiary care center. Pharmacists prepared medication histories,



retrieved health records, checked for medications changes, and referred those patients to the treating dental doctor irrespective of whether the patient was newly on or off medication. Fax-back or telephone calls were also carried out to re-educate the use of medications.

methods

Patient safety, medication-related issues, and taking medication histories were emphasized to enhance understanding of patients' medications. Pharmacists collaborate with dentists to identify and resolve drug therapy problems linked to patients' oral conditions, improving patient care and safety. Integrating pharmacy and dentistry into collaborative practice at the medical school has previously been attempted, with both schools successfully exchanging students across several practice environments, such as inpatient visits and outpatient education. However, the need for increased collaboration at the dental school was evident. The project to integrate pharmacy students into a dental clinic as part of advanced pharmacy practice was developed alongside efforts to incorporate pharmacy residents. Observing dentists evaluate patients is vital for pharmacy students to gather accurate medication histories. Effective communication with dental students, dentists, staff, and patients is crucial, fostering interprofessional teamwork to tackle medication-related challenges in dental operations and enhancing problem-solving skills.

2. The Role of Pharmacy in Dental Care

Although there is a long-standing history of collaboration between community pharmacies and pharmacies in other health care settings, the inclusion of pharmacy services in dental health care has been either overlooked or curtailed, thereby creating a missed opportunity for improved patient care. Many of the recommendations and resources focused on this topic use a model that suggests dental spaces be equipped with needed tools and new workflows put in place. These exercises can confirm the feasibility and potential value of implementing additional pharmacy services in any brush-up dental clinic or other oral health care setting. However, these developments can fall flat without first addressing a necessary core component that can make or break implementing pharmacy services in a dental setting (L. Johnson et al., 2018).

Although interprofessional education is receiving increased attention in schools of health professions, a pharmacist's role in a dental clinic has been underreported. The premise was to use the same educational experience to lay the foundation for future collaboration and allow both sets of students to better understand each profession and how to incorporate services into their own health care settings. To their knowledge, this is the first program to develop a pharmacy service in a dental setting and leads to a range of positive patient and pharmacy practice outcomes.



A pharmacy team was integrated into a dental clinic, and students from both professions collaborated on a standardized patient activity. Training was provided for both student groups on the other professional's major roles, how and what to communicate with one another, and how to manage a patient encounter with both team members present. The pharmacy team was able to integrate their services into an existing dental clinic within six months of first providing services, completing a stepwise process aimed at optimizing patient care through better collaboration between these two health care professions. Although they were unable to directly replicate the research study, there were similar overall outcomes. A total of 2,773 interventions were made and documented: adverse reaction/drug interaction problem (n=1206); drug choice problem (n=778); patient-related problem (n=757); and dosing problem (n=321).

2.1. Medication Management

In 1991, the American College of Clinical Pharmacy defined medication therapy management (MTM) as “a distinct service or group of services that optimizes therapeutic outcomes for individual patients.” The responsibilities of an MTM service provider include “medication therapy review of at least all Covered Part D drugs,” a “personal medication record” for patients, and “an updated medication therapy management plan.” Specifically, cardiovascular disease include hypertension, hyperlipidemia, heart failure, and coronary artery disease. Diabetes mellitus type II patients include long-standing type II diabetes with secondary microvascular complications. Assessment entries were made to note the patient's current medication list, appropriateness of the therapeutic regimen, and medication adherence. All patients were provided with extensive educational materials including a medication therapy management summary and recommendations, and information for the Health and Savings Store (L. Johnson et al., 2018). The 4-week outreach program had 357 visits attended by 233 patients. A total of 168 patients returned for follow up visits. Medication therapy management services were provided for 225 patients, with a total of 242 clinical recommendations generated, most often regarding blood glucose controlling medications (n=62) or medications to address hypertension/hyperlipidemia (n=63). Medication discrepancies were most commonly associated with nonadherence (n=85). This program was the first of its kind to assess teeth whitening products, prescription toothpaste, and dental anesthesia. While all patients were counseled on the use of herbal/routine supplements, only 17% of patients reported taking them.

Collaboration between pharmacy and dentistry is vital in ensuring that patients receive safe and effective care based on their medications. Pharmacists have education and training in regard to the prescribing and dispensing of all medications, allowing them to counsel patients and assess for the efficacy and safety of prescriptions written by other health care providers. Dentists focus on the prescribing and administering of medications for the treatment of dental



diseases or procedures. For many patients, medications prescribed by other specialties may have started in a medical provider's office or are medications for chronic conditions managed by the family physician. These medications are frequently refilled, adjusted or added to by a specialty provider, creating the opportunity for errors or omissions to occur if the specialty providers work in silos. During the dissemination of this education, the pharmacy-dentistry collaboration will be the focus of funding initiatives through the MDS Foundation Grant to implement an MTM program in dentistry.

2.2. Pain Management Strategies

Pain is a common experience in many health care settings, but it is particularly common in dentistry. Patients want a way to reduce or eliminate their pain when they seek care for acute dental pain. Pharmaceuticals have historically been a prominent focus of patient-centered pain management in health care settings because patients believe that medications are a crucial part of their pain management. Many patients, particularly on the street, seek prescriptions for narcotics, believing they are the best or even only option for pain management. Although some patients have unreasonable demands and/or poorly conceived notions about medications for health-care-involved pain, expectations about pain management and relief are crucial in understanding patient behavior (C Brawley, 2019). Pain management is a complex process whose parameters should be clearly understood to create expectations. Options for pain management differ among health care professions, as well as within a single profession during different scenarios (M. A. P. Schuh et al., 2019). Accurate beliefs and understanding of pain management may improve patient satisfaction during clinical care by alleviating anxieties related to the unknown.

Diagnosis allows for the proper evaluation of the condition that is causing the pain. Once a proper assessment is made, the appropriate dental treatment can then be selected that will address the source of the condition. While the dental treatment is performed, drugs are used as an adjunct to the dental treatment to aid in the elimination of the etiology causing the pain and in the management/prevention of pain from the procedure itself. The following approaches to pain management will be discussed first, a method by which the perception (and, therefore, experience) of pain is eliminated: 1. Local anesthetics. Local anesthetics allow for specific areas of the oral cavity to be anesthetized so that dental procedures can be performed comfortably. Such anesthesia allows for the removal of the noxious stimulus that is causing the source of the patient's discomfort. 2. Antibiotics. In other approaches to pain management, antibiotics are used to aid in the elimination of bacteria along with their toxins which may be causing patient discomfort. 3. Pain relievers. Pain relievers are often used in an attempt to relieve the noxious stimulus itself or from the dental treatment provided. The goal of managing patients with dental pain is to remove the source of their discomfort in the



gentlest way possible so that the patient can heal and be free of any dental oral-facial pain or infection.

2.3. Antibiotic Stewardship

The relationship between pharmacy and dentistry is closely related and, therefore, can improve patient experience. The pharmacy, pharmacy and dental practice relationship is that, in some countries, dental practitioners are the third largest prescriber of antibiotics. If they were to be excluded from community pharmacy measures in place to promote antibiotic stewardship, then efforts to remain below 10% of pharmaceutical wholesalers' total antibiotic sales would be undermined. While it is important to understand both the circumstances where dental practitioners may prescribe antibiotics and the extent to which they are doing so, work must be done actively with dentists. This encompasses doing and enabling learning, implementing the measures found to be effective, evaluating again, and further developing these advocacy applicable moving forward.

It is recommended that a European trial investigate dentists' knowledge both before and after a strategy is adopted to curb inappropriate prescribing. This is partly because, in some European Union countries, dentists are more highly trained than others and, thus, the message or understanding may need tailoring. Intensive audits of community prescriptions for 1 month (or longer) would identify terrain for a dentist-focused tailored intervention. Addressing unrealistic time targets for dental treatment appointments would seek to curtail threats to public health. Current actions in community pharmacies might be explained and defence sustained. While broad support for collaborative action is anticipated, it will still be needed to target key stakeholders involved in best implementing measures to contain antibiotic resistance generation (M Njeim et al., 2023).

An audit of dental prescriptions would help to identify early gains from post-interference dental prescribing over the 3-year subsequent action plan. If a useful net gain could be identified from a recent long-established regimen, then a re-evaluation of dental practice would garner the support needed to ensure pharmacy collaboration in a renewed effort. Given the consideration of disinterested serum appointments and their insensitivity to time pressures as theoretical models of SARS control, consideration should also be given to a similar contrast between disinterested non-recipients and anti-vaccine subjects as predictions of the effectiveness of targeted messaging. If considered to wield particular attention, then concern could be directed at gathering information on such an aspect of the vaccine rollout (Săndulescu et al., 2024).

3. The Role of Dentistry in Pharmaceutical Care

To successfully implement an oral contraceptive service, a strong interprofessional practice, collaboration, understanding, and support are key. Pharmacists report routinely dispensing



OCs, although most believed training and ongoing education are important or very important to successfully implement an OC service. Dentists reported training and ongoing education are important to the success of a referral-based oral contraceptive service. Both groups expressed with conviction that an OC service would benefit their patients' oral health and the collaboration of pharmacy and dentistry is 'very important'. Most study participants expressed some level of comfort doing, explaining, counselling, and prescribing most aspects of a general OC service. Dentists reported OCs as a narrowly understood drug class and challenged expanding their role beyond rendering a referral. Nevertheless, dentists were open to sharing the responsibility for addressing OC refills and potential drug-drug interactions. Dentists expressed confidence about communicating with pharmacists regarding patient referrals, allergies, OTC medications, and unintended side effects and supportive of undertaking accountability for initiating and providing a patient-centered OC service as long as it did not incur additional training costs and time (L. Johnson et al., 2018). The relationship between pharmacy and dentistry starts with the understanding of both professions surrounding the goals of patient-centered healthcare. Pharmacy is focused on serving patients' medication education and needs, whereas dentistry is interested in treating and educating patients about their oral health and awareness. For pharmacy-dentistry interprofessional practice, the collaborative relationships and open communication are essential to provide patient-centered healthcare where each profession is engaged and contributes its discipline knowledge, skills, and attitudes for the same health goals. Patients are the core of patient-centered healthcare, but the pharmacy-patient relationship is more profound than the dentist-patient relationship. Patients spend an average of five to six minutes with the dentist or dental assistant but sometimes spend much longer with the pharmacist. Pharmacies are also much more readily available than dental offices, and therefore patients often visit pharmacists for health-related questions or queries.

4. Interprofessional Collaboration

The delivery of health care to patients involving multiple providers, including pharmacists and dentists, is preferable to siloed approaches. Using best practices from the pharmacy health care provider literature as the foundation for interprofessional collaboration, a pilot project was developed between pharmacy and dentistry at a dental school clinic in the Southeastern United States, focusing first on medication management and reconciliation (A. Sanders et al., 2021). Next, key interprofessional education frameworks are discussed for intentional design of the second phase of the project, which involves interprofessional education on a variety of topics relevant to dentist-patient care, including medication management and reconciliation, medical history taking and management, and oropharyngeal cancer risk assessment. Pharmacists on the dental team can identify and help resolve patients' medication-related issues, improving and enhancing patient care, while exposing dental professionals and students to teamwork, collaboration, and the values of responsibilities of



each profession in patient care. An exploratory pilot program that involved a clinical pharmacist in a dental school clinical team is presented here, focusing first on ways to identify patients in need of medication-related assistance with settings that allowed for the most effective intervention by pharmacists. Best practices for interprofessional education are also discussed, with the first week of courses focusing on developing a collaborative interprofessional curriculum across schools. Precise learning objectives for each session were developed.

Outside of the dental school and the College of Pharmacy, several factors regional to the institutions favor collaboration. Faculty members at both colleges aspire to create an innovative and robust education program, with strong support from leadership and equitable buy-in from faculty, staff, and students. Both colleges have also co-existed to some degree on the same campus for almost 50 years, creating an awareness of professional roles and respect for each respective professional training program. There is also increasing recognition of the importance of team-based care in which all health care providers realize the strengths, skill sets, and unique contributions they can offer to each other to improve patient care. The need for education on medication management was tied to training dentists, who master dental skills but may lack the clinic exposure that reinforces the importance and unexpected critical nature of medication management and reconciliation. It is anticipated that with strong initial work and mutual respect, this pilot program will develop into a long-term sustainable collaboration with positive impacts regionally and nationally across pharmacy and dentistry disciplines.

5. Patient-Centered Care Approaches

Pharmacy practice has evolved over the past 30 years from a biomedicine-oriented distributive focus with an arm's length contact to a person-centered collaborative one with a nearby presence. Significant changes include re-framing of the role of the pharmacy, embedding of patient care services in primary care teams, increased expectations for the provision of medication management services, and enhanced role of technicians in the provision of pharmacy services. Once again, the pace of change is intensifying as the COVID-19 pandemic continues to burden the global healthcare system and the emergence and repair of the life sciences economy spur a wave of potential opportunities. However, barely perceptible tensions also arise, such as multi-directional access to, distance from, and needless switching of different locations for pharmacy services across insurers; sales of commonly sold consumer goods; diversification of practices, care modes, and payers; and competition from alternative providers (Isetts et al., 2021).

Collectively, they threaten stability and tension across the patient-pharmacy experience. Simply put, the theme of patient-pharmacy experience is critically important but surprisingly



has received little contemporary attention in pharmacy. Most prominently at issue is for whom and how pharmacy practice ought to be organized and implemented to best prepare for the diversification of pharmacy and the intensifying level of tension. Towards this purpose, pharmacy's original patient-centered nature is re-framed as the more broadly conceived patient experience, which is positioned differently but relates and contributes to many contemporary health endeavors that fit into the current pharmacy context. It is suggested that a huge opportunity exists for pharmacy practice to help design a shared patient experience and care model across the patient-pharmacy interface. Given the unknowns ahead, such a model would need to balance a large patient-centered digital experience with a comparatively smaller human-centered personal experience.

To keep the audience engaged, the article includes an illustration of pharmacy's original patient-centered nature. In this regard, it is relevant to first outline the background in order to help the audience identify pharmacy's original nature of patient-centeredness. Its historical evolution and tense up-to-the-moment pharmacy service provision context are then sketched in order to frame the discussion of how the original nature relates to current pharmacy practice. Patient-centered care is defined in a manner that fits pharmacy practice and it is highlighted that patient-centeredness is universally important not just in pharmacy, healthcare, or in the health system but throughout society as well. The formative influences of the original understanding of patient-centeredness are reviewed and theoretical underpinnings of this conception are provided.

6. Technology in Pharmacy and Dentistry

Dentists collaborate with physicians for health and medication information to mitigate adverse effects during forthcoming dental procedures. Medications and recent developments undergo comprehensive evaluation and discussion. Therefore, for effectively managing a patient's health, medications being taken by a patient must be thoroughly documented, evaluated and communicated by the health care providers involved. Parameters include diagnosis, medication name and dosage form, indication for therapy, and recommendations for dental treatment and alternative pharmacotherapies (L. Johnson et al., 2018). Care is coordinated by clinical health care providers (physicians, dentists, etc.) as opposed to the broader, more complex health care businesses. As a clinical health care provider, dentists may also interact with non-oral health professionals. Coordination of care begins with good communication. A thorough medication history, taken by health care providers, documents the medications currently being utilized by patients. Ideally, patients would be asked about their medications and would provide health care providers with a pharmacy record that includes medication name, dosage form, and frequency. The provider, however, always still must verify this information for accuracy and completeness.



Health care providers are trained early in school on the collection of a medication history. However, for dentists, this takes a backseat to the design, restoration and function of teeth. Although dentists do possess a knowledge base concerning medications, there may be deficiencies in obtaining this information, especially as how it relates to dental treatment. This can lead to adverse effects during treatment, which could have been avoided or lessened. Dentists could practice with more ease and be better equipped for patient care if a resource knowledgeable about medications was available in or very close to the dental clinic. By collaboration with a pharmacist as a member of the clinic team of providers, dentists would fortify their relationships with patients. At an academic institution, pharmacy students could also benefit through learning opportunities in an experiential setting augmenting their education.

7. Impact on Patient Outcomes

Pharmacy services, particularly through interprofessional collaboration, are well-documented means of improving health outcomes (L. Johnson et al., 2018). Addressing patient medication-related needs and focusing on patient safety for this vulnerable population could impact hospital readmission rates, post-operative infection risk, and other clinically relevant metrics. However, dentists and pharmacies have been historically siloed from each other for patients with special needs and thus are unlikely to interprofessionally coordinate care for this population. At some hospitals, pharmacists contribute to pre-operative medication reconciliation, medication order review, and post-operative monitoring, but such interdisciplinary collaborations are likely somewhat rare and not controlled by evidence. Providing this post-operative appointment to dental patients does provide an opportunity for such pharmacy involvement which is hypothesized to yield improvements in medication order management, medication safety, and the overall patient experience. There is substantial evidence that the post-operative education provision improves patient outcomes. However, few peer-reviewed manuscripts currently exist on post-operative pharmacy involvement in oral surgery regardless of institution. Future studies may assess the patient outcomes of this program, pharmacy process measures, patient experience, and specialty performance on other dental surgical cases. Additionally, as post-operative evaluation may be relevant for a range of medical surgeries, there may be opportunity to extend this topic broadly to other dental and medical disciplines. There may also be opportunity for multiple dental sites to implement this working model of post-operative appointments and evaluate its impact on other clinical measures and outcomes. Post-operative education provision or enhanced collaboration may be key to improving patient care across dental and other medical specialties. Further evaluation of the described efforts and their potential impacts may be warranted as a pathway for publication.



8. Educational Initiatives

Although interprofessional efforts between dental and pharmacy teams exist in certain patient care settings, the majority of pharmacy services available in these settings are still not captured in the literature. There are also limited published data on interprofessional education efforts that exist between dental and pharmacy teams, and well-structured collaborative education initiatives between dental and pharmacy programs are rarely implemented. A new course, piloted in the College of Pharmacy and College of Dental Medicine, was developed based on the interprofessional education values established. Although brief, course survey findings suggest the module met educational objectives and was effective in increasing confidence in interprofessional collaboration. Future efforts will result in further refinement of the course, increased duration of the educational module, and continued expansion of the course to include a wider range of health professional students.

The impact of pharmacy services on the oral health care provided in a dental clinic was evaluated by examining changes in opioid prescribing for dental-related procedures during sufficient patient volume. A concurrent review of the records in the dental clinic before and after the pharmacy intervention would be performed. A novel interprofessional dental and pharmacy student tobacco cessation education programme was developed and administered to dental and pharmacy students, which consisted of a 1-hour didactic training and a patient encounter simulation. The long-term and short-term effect of the training on the students' self-efficacy to provide tobacco cessation services and on the practice behaviours of the dental providers were evaluated.

An interprofessional education and collaborative practice model was developed for dentistry and pharmacy students, which included didactic and experiential components. Through the interprofessional event, pharmacy students performed medication management and counseling for older patients in a faculty-led senior clinic, and dental students performed comprehensive oral examinations and assessments. A pilot study on an interprofessional course involving pharmacy and dental students in a dental clinic was also conducted. Designing and implementing a two-part interprofessional course within a dental clinic were described, including a health screening simulation activity led by pharmacy students, and facilitating a medication consultation interview with a patient by dental students.

9. Regulatory and Ethical Considerations

As interprofessional collaborative practice (IPP) between dental and pharmacy students has the potential to improve patient experiences and self-management of chronic disease states and a variety of behavioral health conditions, many key barriers to implementing interprofessional education and practice in this setting must be considered. This section endeavors to address the barriers of regulatory considerations and potential copromotion of



pharmacy services/medications. Regulatory bodies, such as the Board of Pharmacy, need to be supportive of these models of care. Many states have progressive pharmacy practice acts acknowledging the potential for pharmacists to participate in team-based care, which could include dental settings. Nevertheless, for pharmacists to practice in any setting, they need a state-issued pharmacy permit regardless of services provided. This presents a barrier for health system-affiliated dental settings where the need for a pharmacy permit is an administrative burden that can serve as more of a deterrent than incentive for establishing collaborative service agreements. In states with newer practice acts, some understandability on the interpretation of the various terms and relationships between physician and healthcare services included in these practice acts is expected. Action is needed to help garner further regulatory buy-in in this area since potential innovations may take a more traditional route otherwise. Having models such as the aforementioned pharmacy program in a dental setting exist, especially with published peer-reviewed data, could bolster statewide efforts to advocate for the need for improved pharmacy access in dental settings.

While patients may greatly benefit from value-added access to pharmacy services in the dental setting, direct-to-consumer marketing of pharmacy services and medications has been a growing area of concern for regulatory bodies, pharmacy associations, and legislators (L. Johnson et al., 2018). Marketing schemes that are merely suggestive, such as coupons for additional products or services to a previously purchased medication, price discounting or multistate agreements with broad franchises of provider services and prescription medications, are a concern. In addition, a barrier to CDTM services in settings such as dental offices may be both perceptions and real threats of antikickback violations. More real potential impacts of implementation of these services in new settings include the stigmatization of pharmacy practices and perceptions of collusion. In a new collaborative effort, sensitivity must be observed to threats of exposing both pharmacy systems and the already vulnerable dental structure to perceptions of collusion and similar reputational residuals.

10. Future Directions

Interprofessional education (IPE) experiences have produced improvements in IPT attitudes, readiness, and coordination. However, medication and oral health are frequently viewed as separate entities by patients despite being inherently connected. It has been suggested that the inclusion of pharmacists in dental clinics would be beneficial to quantify the impact of IPT on patient outcomes. Pharmacists can work interdependently with dentists to maximize patient medication and supplement effectiveness while minimizing patient risk (L. Johnson et al., 2018). Offering an Advanced Pharmacy Practice Experience (APPE) program in a dental clinic setting provides pharmacy students an opportunity to practice interprofessional skills while providing a meaningful experience to dental students, dentists, and patients. Integrating



pharmacy services into a dental clinic will contribute to future collaborative efforts between the pharmacy and dental colleges, which will be useful to advance pharmacy practice in Kentucky through the pharmacy team's involvement in scholarship, student education, research, and future curricular opportunities. The purpose of this article is to provide dental and pharmacy colleges and clinics across the United States with a framework for integrating pharmacy services into a dental clinic, in hopes that similar collaborative efforts will reduce medication-related issues and improve patient outcomes on a broader scale, while simultaneously benefitting pharmacy and dental colleges.

Dental students develop relationships with patients, create treatment plans, prescribe medications, and perform procedures as part of their clinical experiences. Dentists, beneficially for patients, however, do not have the same training in systems and processes surrounding medication counseling, education, and use. These processes are addressed through an interprofessional collaboration with pharmacy students, with the pharmacy team tailoring services to meet the needs of the dental clinic, dental students, dentists, and patients. The pharmacy services offered in the dental clinic warrant evaluation of effectiveness to advance pharmacy practice. In general, pharmacy service interventions and automatic electronic health record documentation strategies are not refined in the current practice model. Future directions for the pharmacy education interprofessional collaborative and patient care teams will focus on improving the pharmacy services offered in the dental clinic, including custom-tailored documentation and tracking methods, education for dentist staff regarding pharmacy note automation, and involvement in pharmacy and dental curriculum design.

11. Conclusion

Improving overall health care services and reducing health care costs are delivered through the concept of interprofessional health care teams. The integration of pharmacy practice into dentistry is a relatively new concept. Although pharmacy teams are a common and essential component of primary and specialty health care, their incorporation into dental practices has been limited. In 2016, pharmacy teams joined efforts with an academic institution's School of Dentistry to develop a collaborative pharmacist-dentist model of practice. It involves the integration of a pharmacist and pharmacy students as a dedicated team into a dental clinic where they are available for consultation with all dentists, dental students, and staff, and they oversee participating patients' medication-related needs (L. Johnson et al., 2018). This pharmacist-dentist model of practice is a novel approach to improving and expanding health care services and reducing costs while also advancing the fields of pharmacy and dentistry. It represents a strong opportunity for pharmacy students to develop interprofessional skills while reinforcing those learned in the classroom setting. The team pharmacy and dental education offered at this site has potential benefits for patients and health care providers.



Systematic data collection is being undertaken to measure its impact on patient health outcomes, attitudes, and abilities to participate in interprofessional health care teams, and the development of collaborative health care services.

The global pandemic of 2019/2020 caused significant disruptions to interprofessional education during health professional students' clinical rotations. Integration of pharmacy teams into a dental clinic as practicing members of an interprofessional dental health care team and collaboration in patient care provided students unique and robust experience with interprofessional education that reflects how such education can be conducted in a primary care setting. Team pharmacists' direct involvement with patients allows students in both professions to gain robust interprofessional exposure and experience that impact their attitudes about and abilities to participate in interprofessional health care teams at their first opportunity following education. This increased knowledge and experience translates into enhanced appreciation of the merits of interprofessional teams in primary dental care practice and expands team pharmacists' understanding of dentist-pharmacist collaborative practice efforts. Continued development, implementation, and evaluation of pharmacy and dental models of interprofessional education and care are warranted to study this educational approach on a larger scale and its influence on students and their future health care practice.

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