

ANALYSIS OF INITIATIVES AND STRATEGIES IMPLEMENTED BY PHARMACIES TO COMBAT THE OPIOID EPIDEMIC

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1.2 Abstract

The opioid epidemic has been described as the worst drug epidemic in American history, with over 500,000 opioid overdose deaths occurring from 1999-2019. While rates of opioid overdose deaths have plateaued recently, overdose deaths involving synthetic opioids have continued to increase sharply. Community-based approaches involving informal networks, local organizations, and community pharmacies may be particularly well-suited to addressing the opioid epidemic in its present phase, characterized by increasingly illicit and illegal use of opioids (Bach & Hartung, 2019). Small community-based initiatives that are inexpensive and easy to implement may help mitigate the effects of the opioid epidemic. Prescribed opioids and heroin are both part of a larger class of drugs known as opioids. Opioids act on the brain to provide pain relief, but can also produce a euphoric high. In addition to prescribed pain relievers, illicit drugs like heroin and fentanyl are also opioids. With increasing opioid use, one can become addicted to it. Opioid use disorder (OUD) is characterized as compulsive opioid use despite negative consequences. The community pharmacy setting offers unique opportunities to identify and intervene in cases of OUD. Community pharmacies are commonplace and easily accessible; they are frequented by a large number of patients; and they have a prior trusted health professional relationship with patients. Community pharmacy initiatives to address OUD are most relevant in smaller towns and rural areas, where the community pharmacy often serves as the only pharmacy-based health care service provider. A comprehensive search of the scientific literature was undertaken to analyze past, current, and proposed initiatives and strategies implemented by pharmacies in the community to address OUD. Studies, comments, and viewpoints were included if they discussed community pharmacy initiatives that addressed OUD in some capacity. This analysis attempts to identify similar themes among the reviewed literature and describe how community pharmacies have stepped in and attempted to address the growing OUD epidemic.

1.3 Keywords

The opioid epidemic continues to be one of the largest public health crises in American history. Over 1 million people have died from an opioid overdose since 1999, with over 80,000 of those deaths occurring in 2021 alone. While several factors contributed to the beginning of this epidemic, the vast majority of those who currently misuse opioids started with a prescription opioid. In 2016, the CDC released guidelines to reduce the prescribing of opioid medications. Although the intent of these guidelines was to curb addiction and overdose deaths, many outside the scope of the guidelines misinterpreted them as a mandate to drastically reduce opioid prescribing. As patients

on long-term opioid therapy for chronic pain were suddenly cut off from their medications, many were forced to turn to the illicit market for opioids, thus sparking the current wave of additive and overdose deaths involving illicit fentanyl. In parallel with the historic rise in opioid overdose deaths, there has been a historic rise in the availability of medications to treat opioid use disorder (OUD). Medications such as buprenorphine and naltrexone can effectively treat OUD if patients can be retained in treatment. Unfortunately, only 10% of those with OUD currently receive treatment, in part due to stigma surrounding addiction, but largely due to treatment being excessively difficult to access (Bach & Hartung, 2019). Since the start of the COVID-19 pandemic, the federal government has reduced many of the barriers to accessing OUD treatment. For example, buprenorphine can now be prescribed via telehealth and without an in-person evaluation. In addition, training required to prescribe buprenorphine has been temporarily suspended for some prescribers. Still, new treatment options remain largely underutilized. Nevertheless, pharmacies have played an essential role in combating the opioid epidemic by implementing innovative new services such as buprenorphine and naloxone prescribing, which have the potential to dramatically increase access to treatment for those at risk of overdose or in need of treatment for OUD. However, it's also essential to explore the stigma and concerns surrounding these services that have been raised by pharmacists and pharmacy staff in order to understand barriers to wider implementation.

1.4 1. Introduction to the Opioid Epidemic

The opioid epidemic in the United States has evolved over the past two decades, resulting in a significant public health crisis and socioeconomic burden. Nationally, an increase in opioid-related overdose deaths warranted the declaration of a public health emergency (R. Jones et al., 2018). In response, state governments began implementing policies aimed at curbing opioid prescribing and increasing access to treatment for opioid use disorder (OUD). Community pharmacies, comprised of small, independently-operated storefront pharmacies as well as large chain pharmacy locations, are often the most accessible healthcare provider for the public. They have been the focus of many state policies during the epidemic. In recent years, many community pharmacies have adopted best practice initiatives aimed at combating the opioid epidemic. An examination of these initiatives and strategies can serve as a foundation for future efforts and policymaking.

Over the past year, initiatives implemented by major community pharmacy organizations and chains to address the opioid epidemic have been analyzed. The findings highlight the variety of strategies employed and their alignment with best practice recommendations, while also revealing gaps where some recommendations have not yet been addressed by current initiatives. Policymakers and professional organizations should consider these findings as they explore further changes to community pharmacy roles in response to the opioid epidemic. Despite being the most accessible healthcare provider for the public, most recommendations examining community pharmacy roles in addressing the opioid epidemic have focused on national changes and very few on state-level changes (Bach & Hartung, 2019). This represents a considerable gap in the literature. With many community pharmacies implementing initiatives to address the opioid epidemic, an analysis of these initiatives can serve as a foundation for future efforts and a roadmap for policymakers exploring further changes to community pharmacies in combating the opioid epidemic.

1.1. Scope and Impact of the Epidemic

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The opioid epidemic has cost the U.S. population approximately \$631 billion dollars from 2015 through 2020. The increasing burden of opioid-related morbidity and mortality in North America has severely affected the population. Over 932,000 drug overdose deaths occurred between 1999 and 2021, with nearly 75% involving an opioid. Despite being designed for vulnerable patient populations, natural and semi-synthetic opioids have been widely diverted, causing a public health crisis. Inappropriately prescribed opioids can lead to Opioid Use Disorder (OUD) in 1 out of 4 patients. The US response has included expanded funding for research, improved educational programs, and changes in health policy related to the treatment of substance use disorders (Bach & Hartung, 2019). In 2014, a strategic plan was published emphasizing epidemiology, prevention, treatment, and policy.

In addition to an increasing burden of opioid-related morbidity and mortality, public health responses, and policy changes, there has been a proliferation of opioid use disorder (OUD)-related research published in academic journals. Furthermore, many community pharmacists have expressed concerns regarding OUD, which is often a neglected area in advance pharmacy practice. With their extensive accessibility and training, community pharmacists are ideally positioned for a role in surveying for signs of OUD, contributing to programs designed to reduce the harms associated with opioid use, and assisting with the treatment of patients with OUD.

1.5 2. Role of Pharmacies in Addressing the Opioid Crisis

In the United States, the rising prescribing of opioids has precipitated a cascade of events leading to a public health crisis characterized by increased overdoses and deaths from opioids. This epidemic led to a reduction in opioid prescribing, resulting in the inadequate treatment of many patients with chronic pain. The opioid crisis is complex, and no one intervention is likely to solve it. However, in response to mounting legislative pressure, pharmacies and pharmacists are increasingly engaged in implementing a variety of initiatives and strategies to address the crisis, including the prevention of prescription opioid misuse and overdose, the identification and management of patients with opioid use disorder (OUD), and the provision of treatment for OUD with buprenorphine (Thakur et al., 2019).

Pharmacies represent a unique and relatively untapped resource in the fight against the opioid crisis. Community pharmacies, chain and independent alike, are ubiquitous health care resources, with over 90% of Americans living within five miles of one. Pharmacies employ highly trained health care professionals (pharmacists), who are accessible without appointment, and often without health insurance. Furthermore, community pharmacists enjoy a high degree of public trust. In 2018, pharmacists ranked first among professions in honesty and ethics for the 16th year in a row. Community pharmacies may present an opportunity for patients with OUD to make contact with a health care professional. Despite the public health need, there is currently minimal engagement of community pharmacies in addressing the opioid crisis (Bach & Hartung, 2019).

2.1. Dispensing Practices and Regulations

Prescription opioids are often the first exposure for many individuals who develop opioid use disorder. Efforts to mitigate the harms caused by opioids have largely focused on curtailing access to prescription opioids, often resulting in unintended consequences as individuals with prescribed or non-prescribed opioids seek alternatives. Opioids illicitly obtained due to diversion from treatment or misuse of prescribed opioids tend to be more potent. Patients may also transition to heroin or, more recently, illicitly manufactured fentanyl or other synthetic opioids, which are far

more potent than prescription opioids and are often mixed with other drugs, increasing the risk of an overdose.

Despite railroads bottling up traffic in the face of a freight recession, it is still too early to tell whether they will reverse the recent cuts to their highly consequential network of rural branch lines. Railroads across North America in recent years have taken a hard look at their branch line networks amid a changing operating environment. At the same time, policymakers have grown increasingly concerned about the future of those lower-traffic lines, particularly in rural areas where they are often the only viable freight transportation option.

In the U.S., more than 140,000 miles of track operated by much larger Class I railroads have been labeled “secondary” and “tertiary” lines, where a one-car-per-day average is considered high-volume. Many markets served by these lines have either collapsed or shrunk, leading to line abandonments and diversions to trucking. But tough investments are needed to keep branch lines viable for railroads. Some experts tout a new model of public-private partnerships that would see states subsidizing short lines on branch lines; others say that piecemeal approaches to branch line frailty will miss the larger picture.

1.6 3. Initiatives and Programs Implemented by Pharmacies

The opioid epidemic has reached alarming proportions across the United States, resulting in a public health emergency. The rate of opioid-related deaths has surged by 250% since 2002, with a 240% rise in the rate of opioid overdose deaths over the same period. These alarming trends continue to escalate, with opioids involved in nearly 70% of all drug overdose deaths in 2020. Yet, despite the availability of highly effective treatment strategies for opioid use disorder (OUD), research shows that the vast majority of people with active OUD are currently not being treated (Bach & Hartung, 2019). For those who are treated, access to care remains persistently inequitable. Pharmacies represent a unique and relatively untapped resource in the fight against the opioid crisis, as they can connect at-risk and affected patients with prevention and treatment services.

The wide distribution of pharmacies across the nation, coupled with at-risk population grouping patterns, suggests that access to pharmacy services could be an effective means for reaching marginalized populations affected by the opioid crisis. Additionally, pharmacists are among the most trusted professionals in the United States. Unfortunately, despite their unique attributes that could aid in handling the crisis, a lack of ability and motivation currently prevents pharmacies from directly intervening. However, recent initiatives have inspired community pharmacies to begin playing a wider role in the prevention and management of OUD, and research is beginning to examine and quantify these strategies. By successfully leveraging the role of community pharmacists, it may be possible to improve the prevention, surveillance, and treatment of opioid use disorders.

Across the United States, a multitude of different initiatives have recently begun or expanded at community pharmacies in response to the ongoing opioid crisis. Most notably, pharmacies have emerged as sites for naloxone distribution and education on opioid overdose rescue and prevention. Despite being a safe and effective opioid overdose reversal agent, community pharmacies were slow to begin dispensing naloxone following its widespread availability in most states in 2017. In fact, many chain pharmacies actively resisted efforts to expand access and education on naloxone. A variety of different initiatives seek to augment and expand these services at community pharmacies. These include establishment-wide policy changes regarding the availability of

naloxone and training for pharmacy techs and staff to provide education to patients that fill prescriptions for high-risk opioids (Thakur et al., 2019).

In addition to naloxone distribution and education, some pharmacies have begun or expanded programs that educate at-risk patients about recognizing and preventing opioid overdoses when dispensing high-risk opioids, including providing take-home educational materials. Some initiatives provide take-home materials that describe opioid overdose recognition and rescue in plain language with diagrams to improve understanding in low-literacy populations. Efforts have also begun to expand community pharmacies' capabilities in continuously educating patients about overdose prevention and recognizing the need for education rather than relying on physicians to initiate discussion and education.

3.1. Drug Take-Back Programs

To mitigate the detrimental effects of unused prescription opioids, it is vital to increase the safe and effective disposal of these medications. Not only does it provide a direct means of prevention for adolescents seeking medications for misuse and abuse, but it also lowers the risk of unintentional overdose by adults who may otherwise be exposed to the drugs (Vehige Calise et al., 2022). Drug take-back programs seek to educate and encourage patients to dispose of unused medication as soon as it is no longer necessary through the provision of proper disposal options. As accidental overdose typically results in death within hours of exposure, and adolescents are most likely to seek these medications at the time of misuse, it becomes imperative that unused prescriptions are disposed of as soon as possible. Research efforts have also shown the awareness and proactive accountable responsibility from both pharmacist and society strongly support the institution of drug take-back programs. On the other hand, the poor knowledge of the society committee members regarding drug disposal issues should be addressed through training and education. To launch a national effective drug take-back program, the cooperation and collaboration of different governmental sectors, along with national awareness on different levels, are necessary.

1.7 4. Use of Technology in Opioid Abuse Prevention

Pharmacies are uniquely positioned to be involved in the prevention and management of opioid use disorder (OUD). Pharmacies are the most accessible health care setting, with patients visiting pharmacies more frequently than primary care or mental health providers. Many pharmacy chains have pharmacies in medically underserved areas, and patients have expressed willingness to use pharmacies for their treatment. In addition, pharmacist-delivered services, such as medication therapy management and immunization, have been well-accepted by patients. Community pharmacies can play a critical role in fighting opioid overdoses by education, outreach activities, and provision of naloxone. Despite many state laws allowing pharmacists to dispense naloxone without a prescription, uptake of these laws has been slow. Currently operating community pharmacies can be engaged in OUD prevention through much more straightforward initiatives, such as providing continuing education to pharmacists on current treatment options, recognition of overdose, and harm-reduction strategies (Bach & Hartung, 2019). Pharmacies can also be engaged in the prevention of OUD through the implementation of prescription drug monitoring programs (PDMPs). PDMPs are state-run electronic databases that track all prescriptions of controlled substances. Health care providers are required to consult a patient's PDMP data prior to prescribing a controlled substance, and the information in the PDMP can be accessed by other state regulatory agencies and law enforcement. PDMPs were created to address prescription drug

abuse, and the rapidly growing number of illicit opioid overdoses is, in part, a consequence of prescription opioids falling out of circulation (Elder et al., 2018).

4.1. Electronic Prescription Monitoring Systems

Most states have enacted regulations that allow patient data to be collected, stored, and reviewed within a Prescription Drug Monitoring Program (PDMP) database. This database maintains a secure electronic record of all controlled substance prescriptions, which can subsequently be accessed by prescribers, pharmacists, local law enforcement, and certain state regulatory agencies (Elder et al., 2018). By providing a comprehensive list of controlled substance prescriptions, PDMPs create an opportunity to identify individuals misusing the health care system to fuel an addiction, such as those “doctor shopping” to gather multiple prescriptions. In addition to reviewing a patient’s PDMP history, most states also require a review prior to prescribing certain controlled substances for the first time or at regular intervals after prescribing. As more modern PDMP systems came online in conjunction with this decline, they are thought to have played a role in reducing prescriptions in circulation and providing local governments with better resources to identify illicit activity.

Emergency Departments (EDs) and their providers are on the front lines of the opioid crisis, treating significant portions of the surrounding community. Having a better understanding of the PDMP’s effectiveness in the ED and limiting the opportunities for abuse and diversion has the potential to curb drug abuse and diversion. Yet currently, PDMPs are complicated by varying state-to-state requirements and a lack of interconnectivity, which limit their usability and use.

1.8 5. Collaboration and Partnerships in Opioid Crisis Management

Community pharmacies are uniquely positioned to assist with the response to the opioid crisis. The ubiquity of pharmacies means they may be more abundant than designated treatment clinics and provide access to healthcare professionals in settings where patients feel more comfortable. Research shows that pharmacies across North America have begun to implement programs to offer clients with opioid use disorder (OUD) contact with healthcare professionals and expand access to treatment via the pharmacy setting (Bach & Hartung, 2019). However, several barriers limiting the successful implementation of these programs have also been identified, including concerns about the ability of pharmacy staff to adequately deal with OUD patients and a lack of resources to appropriately implement new programs.

Prior to the COVID-19 pandemic, a number of pharmacies and pharmacy chains in the United States began to experiment with strategies to tackle the opioid crisis and expand treatment options for OUD clients via the pharmacy setting. These strategies were often designed as pilot programs and offered valuable examples of implementation strategies suitable for other pharmacy settings. Pharmacy chains in the United States that implemented pilot programs to expand access to treatment for opioid use disorder via the pharmacy setting included (L Swann et al., 2022). Participating pharmacies provided buprenorphine, a medication used to treat opioid use disorder, either on-site or via referral to another location. These initiatives often included the provision of additional training for pharmacy staff and encouraged cooperation with organizations providing addiction services. As strategies developed in community pharmacy settings in the United States may be transferable to other settings, similar responses by pharmacies to the opioid crisis in other jurisdictions are summarized.

5.1. Community Outreach and Education Programs

Pharmacies have implemented a number of initiatives and strategies to help combat the opioid epidemic within their communities. Through community outreach and education programs, pharmacies have helped inform the public about the dangers of opioids and opioid use disorder (OUD) while also providing education on prevention and treatment resources. Community pharmacists want to ensure that patients have accurate and useful information related to opioids and OUD, and thus have implemented educational programs that distribute fact sheets detailing how to identify an OUD or opioid overdose, as well as resources for prevention and treatment. In schools, community pharmacies are also helping educate students about opioids and OUD. One community pharmacy chain has developed a program that educates middle school students on the dangers of prescription opioid misuse and provides fact sheets for students to distribute to their parents (Thakur et al., 2019). In addition, pharmacies have supported educational programs developed by local colleges of pharmacy that provide information on opioids and OUD to high school health classes.

To help educate patients about the dangers of opioids, some community pharmacies have also partnered with local or state health organizations to help distribute "Know Your Opioids" fact sheets, which detail the physical and mental side effects of opioids, how opioids can interact with other medications, the signs of an overdose, and information about treatment for OUD. These fact sheets also provide information on harm reduction strategies, including how to obtain and properly use naloxone. This educational program was developed in response to a statewide increase in opioid overdoses and OUD. In a survey of chain pharmacy district managers, all respondents reported that their pharmacies have implemented community outreach and education programs focused on opioids. One pharmacy chain partnered with a state health department to implement similar programs statewide. Additionally, pharmacy chains have taken it upon themselves to implement community outreach and education programs focused on opioids in areas where there is a higher prevalence of opioid-related overdoses and deaths (Bach & Hartung, 2019).

1.9 6. Pharmacist Training and Education on Opioid Misuse

In the United States, the number of deaths due to prescription opioid overdose continues to rise. Community pharmacies are one of the most common and accessible health care providers and have initiated efforts to combat prescription opioid misuse. A nationally-representative survey of chain and independent community pharmacy owners was conducted to identify the initiatives and strategies implemented by pharmacies to combat the opioid epidemic, including their perceived barriers to implementing new initiatives and strategies. Public awareness and education efforts were the most commonly reported initiatives, followed by efforts related to improving the safety of opioid prescribing and dispensing. Chain pharmacies reported implementing a greater number of initiatives than independent pharmacies. Potential policy and regulatory initiatives at the state and federal levels to facilitate the implementation of new initiatives and strategies were identified (Thakur et al., 2019). A majority of states have mandated training for prescribers but only a few states have mandated training for pharmacists, pharmacy technicians, or student pharmacists. Considering the pivotal role pharmacists play in detecting and intervening with patients potentially misusing prescription opioids, training and education on opioid misuse should be mandated for pharmacists and pharmacy staff at the state level. Continuing education programs should also be developed to facilitate the wider and more consistent implementation of opioid misuse training and education in community pharmacies.

6.1. Continuing Education Requirements

Many states have gone beyond the requirements of the federal Drug Enforcement Administration in mandating that pharmacies provide counseling to those picking up a prescription for an opioid. Five states — California, Illinois, New Jersey, New York and Washington — require that a pharmacist counsel a patient when dispensing an opioid prescription. Others, including Delaware, Massachusetts and Rhode Island, have expanded the existing counseling requirements to mandate that those picking up an opioid prescription receive counseling.

In 2014, New York was the first state to require “face-to-face consultation” with a pharmacist when a patient picks up an opioid prescription. Under the law, the pharmacist must counsel the patient regarding “the risks associated with the use of such medications, and the potential dangers of short-term use of such medications.” In addition to the face-to-face counseling provision, New York also requires that a flyer regarding the risks of opioid use be provided to the patient each time they obtain an opioid prescription (Porter et al., 2022). New Jersey also requires “in-person counseling” when an opioid is dispensed for the first time and that a patient be counseled on the “risk of overdose while using opiates.”

Illinois requires counseling by a pharmacist when an opioid prescription is filled, and the counseling must cover, at minimum, “the dangers associated with such medications, including the risk of overdose and death.” Washington requires counseling when picking up any prescription for an opioid. The law specifies that the counseling must at least cover “the risks associated with the use of such medications, including the potential dangers of addiction, abuse, and overdose.” New York and Washington both specify that the counseling must be conducted in private (Williamson et al., 2021).

1.10 7. Barriers and Challenges Faced by Pharmacies

Pharmacies are critical stakeholders in addressing the opioid epidemic due to their access and visibility within communities. During the COVID-19 pandemic and increasing rates of drug overdoses, many pharmacies adopted innovative strategies to continue or expand services related to prevention, treatment, and recovery. These efforts are vital to understand and share, as they can inform the next steps for community pharmacies involved in similar or expanded programs and services. Pharmacies' initiatives are of particular interest to researchers, advocates, and academic institutions seeking to support additional community-based prevention and treatment efforts.

Pharmacies could play an even larger role, with the support of policymakers, health systems, and advocacy organizations. Eight community pharmacy organizations in Indiana were recruited to participate in telephone interviews. Pharmacists and pharmacy owners involved in the pharmacy organizations answered questions about their services, programs, and initiatives related to preventing drug overdoses and supporting people with substance use disorder (SUD) (Ann Eldridge et al., 2024). Interview questions focused on current or recent services and initiatives, barriers and challenges, and recommendations for supporting the expansion of pharmacy-led initiatives. The interviews were analyzed using a qualitative framework approach. Strategies and initiatives implemented by pharmacies generally fell into four areas: education and awareness, policy and procedure changes, new or expanded services, and community partnerships (L. Winstanley et al., 2022).

7.1. Stigma and Discrimination

Stigma towards Opioid Use Disorder (OUD) negatively affects treatment accessibility, acceptance, and quality. The stigma associated with opioids is exacerbated by their dual perception as necessary for pain management and risk factors for addiction. Initiatives aimed at preventing or mitigating the negative impacts of stigma on patients with misuse disorders are crucial. Although pharmacists play a key role in the distribution of opioid prescriptions, addiction treatment medications, and patient education, as well as in harm reduction education and services, there is a lack of understanding of their role in addressing OUD-related stigma.

Pharmacy education, as an entry point into the profession, is critical for cultivating future pharmacists who understand the importance of compassion and empathy in patient care. Research suggests that stigma regarding substance use disorders exists in pharmacy education, which may hinder the development of empathy and compassion towards patients with these disorders. To address this situation, it is important to understand the current perceptions of pharmacy students regarding the stigma associated with OUD. Results show that OUD-related stigma exists among student pharmacists, impacting their willingness to provide care and recommendations, and that pharmacy education may be used to design and implement effective strategies to address stigma (Cernasev et al., 2021).

Opioid Use Disorder (OUD)-related stigma has been recognized as a barrier that limits willingness to provide care for patients with OUD. Stigma affects the treatment and management of individual patients, as well as the overall effectiveness of health systems. A study assessing physician and medical student willingness to treat patients with substance use disorders found that stigma was an influencing factor at both the professional and individual levels. Efforts to educate healthcare professionals on the importance of treating patients with substance use disorders have improved receptiveness but not completely eliminated stigma. Providing care to patients with substance use disorders is associated with an increase in personal stress, which may influence professional coping strategies. In this regard, harm reduction strategies at the health system level may play an important role in creating an environment where health professionals feel supported in caring for patients with substance use disorders, thereby alleviating some of the stigma they may experience as a result of caring for such patients (Cheetham et al., 2022).

1.11 8. Future Directions and Innovations in Opioid Epidemic Management

Communities across the United States are setting up programs to bring together local pharmacists, who have key roles in the health care system, and public health experts. In these collaborations, pharmacists receive education and training on how to help prevent unintentional overdoses from prescription opioids by community members who fill prescriptions at their pharmacy. Recommendations are made for future programs, including employing pharmacy-based public health experts to educate and train pharmacists, and introducing simple and effective take-home naloxone distribution protocols. Pharmacy-based public health outreach could be a resource for programs in other cities and states responding to the opioid epidemic. In 2017, there were 70,249 drug overdose deaths in the United States, and of these, 47,600 (67.8%) involved opioids. Opioids include prescription opioids, such as oxycodone and morphine, as well as illicit opioids, such as heroin and fentanyl. Naloxone is a competitive opioid receptor antagonist used to reverse the effects of opioid overdose. When administered, naloxone precipitates withdrawal in patients with opioid use disorder (OUD) and may cause agitation. Opioid overdose deaths prevented by

naloxone are often associated with preventable emergencies and can occur in patients new to opioid use or those using opioid medications as prescribed (Thakur et al., 2019).

8.1. Telepharmacy Services

Several telemedicine and telehealth initiatives were implemented by hospitals, outpatient clinics, pharmacies, mental health facilities, and private settings to continue care for patients in need during the pandemic. These initiatives varied widely by setting and location and were designed to rapidly control infection while allowing care to patients at-risk. Telepharmacy is a unique blend of telehealth and pharmacy practice that involves delivery of pharmacy services using telecommunications technology. Telepharmacy can play a critical role in preventing interruptions in pharmacy services especially in settings with high turnover or limited number of pharmacists. Telepharmacy initiatives were observed in hospitals and outpatient community pharmacy chains. Most commonly observed telepharmacy initiatives were virtual consultations, home delivery of medicines, and patient education on chronic diseases and medicines (J. Unni et al., 2021).

1.12 9. Conclusion

As the leading providers of health care services and medications within communities, community pharmacies are ideally positioned to assist in efforts to combat the opioid epidemic. This includes wider distribution of naloxone and other harm reduction initiatives, as well as increased access to screening and treatment for opioid use disorders. Community pharmacy representatives from across the country were invited to participate in a discussion focused on the strategies being implemented in pharmacies and states to address the opioid epidemic. This meeting covered the range of initiatives currently being implemented by pharmacies to combat the opioid epidemic, as well as recommendations to enhance and expand these efforts (Bach & Hartung, 2019). Providing a valuable role in the public health infrastructure, community pharmacies are the most accessible health care provider in the country. With a large portion of the population having direct access to a community pharmacy, they are in a unique position to offer harm reduction services. Community pharmacies should be encouraged to conduct pilot programs providing overdose education and naloxone as a direct service with the support of patient advocacy groups and state pharmacy associations. Pharmacies that take an active role in harm reduction initiatives will have a competitive advantage over those abstaining from these public health measures, and state legislatures can play a role in fostering pharmacy involvement (Bolivar et al., 2022).

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