Original Research

Primary Care Providers' Experiences Treating Opioid Use Disorder Using Telehealth in the Height of the COVID-19 Pandemic

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Abstract

Background: The COVID-19 pandemic catalyzed a rapid shift in healthcare delivery towards telehealth services, impacting patient care, including opioid use disorder (OUD) treatment. Regulatory changes eliminated the in-person evaluation requirement for buprenorphine treatment, encouraging adoption of telehealth. This study focused on understanding experiences of primary care providers in predominantly rural areas who used telehealth for OUD treatment during the pandemic. **Methods:** Semi-structured interviews were conducted with 22 primary care providers. Participants practiced in 13 rural and 9 urban counties in Kentucky and Arkansas. Data were analyzed using conventional content analysis. **Results:** The pandemic significantly impacted healthcare delivery. While telehealth was integrated for behavioral health counseling, in-person visits remained crucial, especially for urine drug screenings. Telehealth experiences varied, with some facing technology issues, while others found it efficient. Telehealth proved valuable for behavioral health counseling and sustaining relationships with established patients. Patients with OUD faced unique challenges, including housing, internet, transportation, and counseling needs. Stigma surrounding OUD affected clinical relationships. Building strong patient-provider relationships emerged as a central theme, emphasizing the value of face-to-face interactions. Regarding buprenorphine training, most found waiver training helpful but lacked formal education. **Conclusion:** This research offers vital guidance for improving OUD treatment services, especially in rural areas during crises like the COVID-19 pandemic. It highlights telehealth's value as a tool while acknowledging its limitations. The study underscores the significance of strong patient-provider relationships, the importance of reducing stigma, and the potential for training programs to elevate quality of care in OUD treatment.

Keywords

medication for opioid use disorder, buprenorphine, qualitative, rural, primary care

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Introduction

Opioid use is a major public health problem in the U.S.; the Centers for Disease Control and Prevention (CDC) reported that overdose deaths attributable to opioids, particularly synthetic opioids, accounted for approximately 75% of all drug overdose death in 2021.[1] According to recent estimates from the Mental and Substance Use Disorders Prevalence Study, 0.5% of persons 18 to 65 years of age met criteria for a past year opioid use disorder (OUD).[2] Fortunately, in contrast to other substance use disorders (SUD), several FDA approved medications are available to treat OUD.[3] Methadone, a full opioid agonist, has long been available but requires regular visits to an opioid treatment program licensed by the Substance Abuse and Mental Health

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Services Administration (SAMHSA).[4] Buprenorphine, partial opioid agonist, greatly expanded medication access as it can be prescribed by physicians, nurse practitioners, and physician assistants in regular medical care settings.[5] Although availability of buprenorphine has greatly increased access to OUD treatment, some restrictions have hampered more widespread prescribing among primary care providers. Prior to the COVID-19 pandemic, health care providers were required to have a waiver as part of 2000 Drug Addiction Treatment Act (referred to as a DATA waiver) from the Drug Enforcement Administration (DEA) to prescribe buprenorphine.[6] In 2016, the Comprehensive Addiction and Recovery Act (CARA) allowed nurse practitioners (NPs) and physician assistants (PAs) to prescribe buprenorphine in-office, with a requirement to obtain a waiver after completing 24 h of specialty training as well as a cap on patient enrollment. The Consolidated Appropriations Act of 2023 has since eliminated the DEA waiver stipulation, allowing any provider registered with the DEA to prescribe buprenorphine as long as they had received 8 h of SUD treatment training.[6]

In response to the COVID-19 pandemic, many health care providers rapidly adopted telehealth, including rural primary care providers (PCPs), to provide buprenorphine for the treatment of OUD.[7,8] One significant telemedicine regulatory change that precipitated the use of telehealth for prescribing buprenorphine was the lifting of requirements for physical evaluations conducted in-person.[9-11] A second significant regulatory change was the waiver of any Health Insurance Portability and Accountability Act (HIPAA) penalties for the use of common audio and visual applications like FaceTime (Cupertino, CA: Apple Inc.) and Skype (Palo Alto, CA: Microsoft Corp.), as well as audio-only telephone visits for patients without access to visual applications.[9,11,12] In the wake of the pandemic, national surveys of DATA-waivered providers suggest widespread adoption of telehealth for prescribing buprenorphine.[13-15] However, one of these surveys found that rural providers were less likely than suburban ones to use telehealth during initial visits for OUD.[15] The same study described several patient level barriers to telehealth, including patients' abilities to access telephones, use technology, and consistent shelter, as well as clinical practice barriers, including challenges conducting periodic urine tests to screen for drug use. Less research has focused on PCPs who became eligible to prescribe buprenorphine without a waiver during the pandemic.

Understanding PCPs' adoption of telehealth for prescribing buprenorphine is important because increasing buprenorphine prescribing capacity among primary care providers (eg, family medicine and general practice physicians, nurse practitioners, and physician assistants) has been an important strategy for increasing access to OUD treatment nationwide.[16-20] Family physicians are the predominant physician specialty in rural communities,[21] but only a handful of studies have examined rural PCPs' use of telehealth for the treatment of OUD during the pandemic. One study of patients treated for OUD at a primary care clinic in rural Appalachia documented that telehealth visits increased substantially during the pandemic.[8] A second study tested a care coordination model in which rural primary care providers could refer patients to off-site telehealth treatment, finding that the vast majority of providers continued to treat patients themselves, either through in-person or telehealth modalities.[22]

We conducted a qualitative study to evaluate primary care providers' abilities and experiences using telehealth (telephone and/or video) to diagnose and treat patients with OUD, as well as their perceived or experienced facilitators and barriers to implementing telehealth within their practice settings in Kentucky and Arkansas and their observations about OUD patients' treatment adherence when using telehealth versus in-person visits. Kentucky and Arkansas are 2 states that have large proportions of their populations residing in rural areas. In 2021, Kentucky's overdose mortality rate was 55.6 per 100 000, ranking fourth highest in the nation.[23] The 2021 overdose mortality rate in Arkansas was 22.3 per 100 000.[23] Opioid overdose deaths have increased in Arkansas since 2017, with opioids accounting for a higher percentage of overall overdose deaths from 2017 to 2020.[24]

Methods

Overview

Semi-structured individual interviews were conducted among a sample of 22 primary care providers (physicians, nurse practitioners, and physician assistants) between December 2021 and September 2022. The University of Kentucky's Institutional Review Board approved the study protocol.

Study Setting

The study was conducted among primary care providers in 13 rural (non-metropolitan) and 9 urban (metropolitan) counties in Kentucky and Arkansas, as shown in Figures 1 and 2. Rural or urban practice setting was determined based on the classifications of the counties in which their primary practice clinic was located as designated by the U.S. Office of Management and Budget definitions. This involved categorizing counties into 2 groups: "urban" (metropolitan) counties, which encompassed those with urban cores containing over 50 000 individuals, and "rural" (non-metropolitan) counties, which included all other counties as per the Office of Management and Budget's criteria.[25]

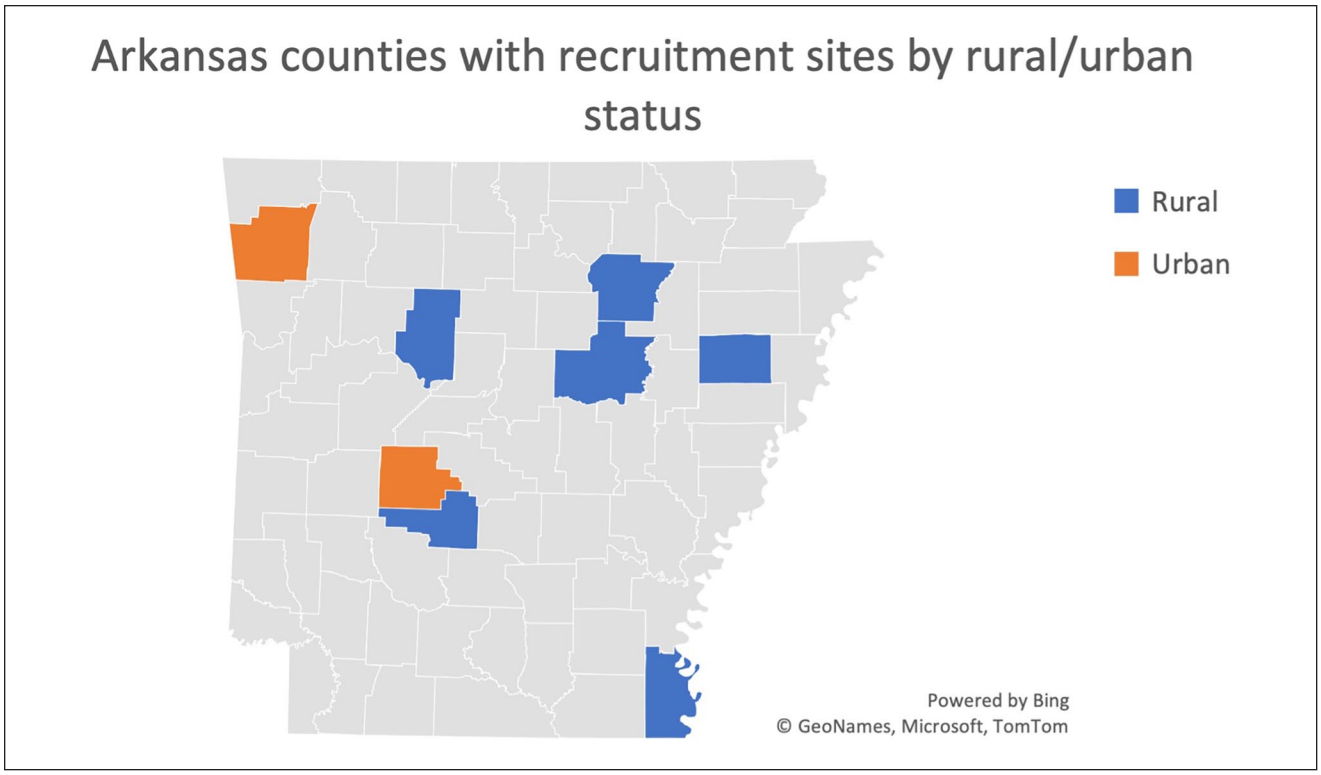

Figure 1. Map of Arkansas counties with recruitment sites.
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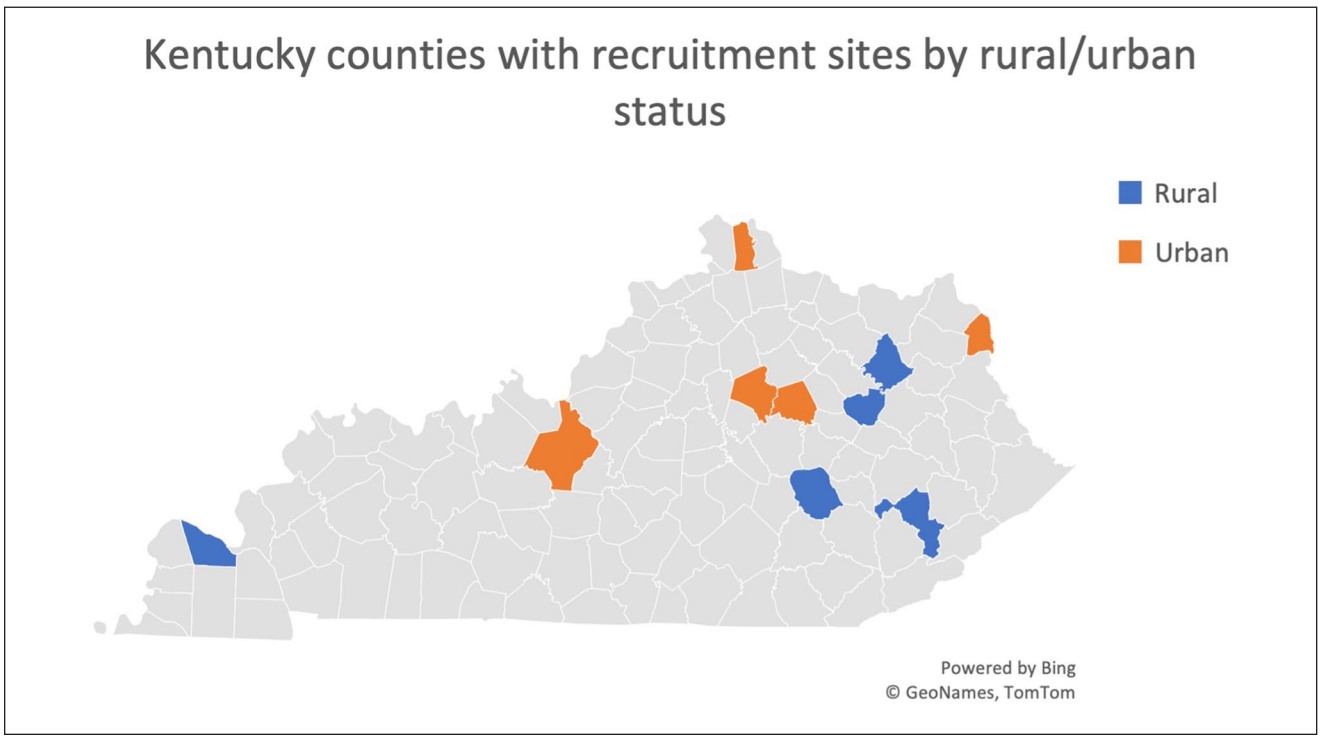

Figure 2. Map of Kentucky counties with recruitment sites.
*Use color in print.

Recruitment Procedures

Members of the research team (KY, TB, and NZ) collaborated with state primary care associations, professional organizations, and networks of community health centers to distribution information about the study to potential participants. Study advertisements and communications included information about how to contact study staff via phone or email. To be eligible, each clinician must have been: (1) a primary care physician, nurse practitioner, or physician assistant; and (2) a self-identified active prescriber of buprenorphine. Among those eligible, a study staff member then scheduled a time for the participant to complete a telephone interview using similar methods employed in another study by our team interviewing clinicians in mostly rural counties.[26] Interviews were scheduled for approximately 45 min. Telephone interviews were acceptable to and convenient for busy clinicians and allowed the researchers to interview clinicians in varying geographic locations in both states throughout the study period without the costs and coordination associated with arranging site visits to busy clinics—advantages cited by other researchers in favor of conducting phone interviews.[27] Also, because the interviews were conducted via telephone, the participants were able to choose a location that allowed privacy. Participants who completed an interview were e-mailed a $50 Amazon e-gift card. One participant declined this compensation.

Data Collection

Individuals who agreed to participate were asked to provide verbal consent before the interview began. Two researchers (SAM and NZ) conducted the semi-structured interviews using an interview guide designed to address the following domains: background about the provider, the practice setting, and the patient population; experience(s) with prescribing buprenorphine as medication for OUD (MOUD); experiences with telehealth; and any changes in their practices because of the COVID-19 pandemic (see Table 1 for an abbreviated interview guide). Interviews were digitally recorded, and the audio recording was transcribed by a professional transcription service. No personal identifying information was reported in the interview findings, and any individual identifiers have been removed or changed in the presentation of the results. Data collection ended when data saturation was achieved.

Analysis

Transcribed data were uploaded into MAXQDA, a qualitative data analysis package. Members of the research team (SAM and LES) employed conventional content analysis.[28] The research team developed the initial codebook based on the semi-structured interview guide. Two researchers independently coded the de-identified interview transcripts. Two coders were used to enhance rigor in analysis.[29] They used both deductive and inductive coding in their analysis. They met to revise the preliminary codebook—adding emergent codes and revising coding definitions. They met again to resolve discrepancies in coding and to achieve consensus. Then, they met to identify and articulate themes.

Results

Description of Participants

The researchers completed 22 interviews with providers. All were non-Hispanic or Latino (n = 22) and most were white (n = 20); most were female (n = 15); and most worked in practices in counties defined as rural (n = 13). Rural versus Urban designation was confirmed according to the U.S. Office of Management and Budget definitions of non-metropolitan and metropolitan counties, though some participants reported that their practices served a different category than what these definitions implied. (Table 2.) For example, although some providers technically practiced in an urban setting by definition, they reported that their patients lived in or were from rural areas.

Qualitative Themes

Themes were developed for each of the following coding domains, "pandemic;" "negative telehealth" experiences and "positive telehealth" experiences, which were combined into "telehealth experiences"; "general needs" of patients; "experiences prescribing buprenorphine" for OUD treatment; "became interested" (which captured descriptions of how participants became interested in prescribing buprenorphine) and "lessons learned"—elements of which were combined into the theme "relationships are important"—as well as "buprenorphine training." Refer to Table 3 for a complete list of themes. Each theme is presented below along with exemplar quotes.

Pandemic and changes in treatment and community needs. Many participants indicated that the pandemic changed their treatment/service delivery but not in way that impeded their treatment/service delivery or patient treatment adherence. The impact of the pandemic on treatment and service delivery was considerable. "I was practicing pre-COVID; COVID definitely changed the dynamic of how we do some of the things here," (Participant #7, white female, rural practice). Participants recognized that the pandemic necessitated changes in their approaches to care, yet it did not significantly hinder their ability to provide treatment or affect patient treatment adherence. Some clinicians mentioned pivoting to offer "curbside visits" (where providers would see patients in the clinic's parking lot) or

Table 1. Abbreviated Interview Guide with Sample Questions.

Interview topic	Sample questions
Background	About how long have you been practicing medicine since completing residency/training?
	Tell us about your clinic, how would you describe your practice setting and patient population?
Prescribing experiences	About when did you begin prescribing buprenorphine?
	About how many patients are you currently treating for opioid use disorder using buprenorphine?
	Can you tell us about a success story? An example where buprenorphine treatment has been particularly helpful in treating OUD?
	What made you become interested in prescribing buprenorphine?
Experience and training in providing telehealth buprenorphine	Tell me about your experience in providing telehealth services for patients with OUD?
	What do you perceive as the risks in using telehealth services?
	How do you think telehealth services could be improved?
Training and preparedness	Please describe the training that you have received related to use telehealth
	What is your perception on how confident clinicians feel in providing telehealth services to patients, including handling substance using clients who may be suicidal or homicidal?
	What do you wish you had known before providing telehealth services to your patients?
Availability of telehealth services and process to increase it	What telehealth services, that is, substance use, mental health care, employment counseling, etc., are available for patients in your practice setting?
	What telehealth services do you think need to be offered to your patients that are not currently available?
Pandemic	How have treatment services been affected during the COVID-19 pandemic?
	What have been the challenges in delivering telehealth services during the pandemic?
	What sorts of help did your patients need especially during the pandemic?
Implementation issues	What are the "lessons learned" that you would be able to share with anyone planning to implement telehealth buprenorphine treatment?
Recommendations and policies	Do you think you have enough people trained in providing telehealth services for the number of patients you have with OUD? Why or why not (*if no, would providing training be one is one policy change they would suggest*)?
	Do you think there is enough staff to help patients who are receiving telehealth services?
Final questions	Do you think there is a need to expand access to buprenorphine treatment in your area/community? If yes, how much expansion is needed? What have been the barriers to expansion thus far?
	What do you think would be the most helpful to your patients who need treatment for addiction to opioids?

offering telehealth for certain services, such as counseling, but still had their OUD patients come in person for their urine drug screenings.

> Participant #8, white female, rural practice: "We made a conscious decision to keep our doors open . . . Because we knew these patients needed this medication and going to obtain it regardless. And, it was going to reduce the spread of COVID if we could still offer a service that was very important our community. So, there were some minor changes, but nothing. . . We continued to operate fully."

Negative and positive telehealth experiences. Many participants often encountered logistical challenges when incorporating telehealth for OUD and noted disruptions in their relationship quality with their patients. However, many also saw the importance of telehealth in improving access to care, particularly for behavioral health counseling and/or for well-established patients.

Negative telehealth experiences were noted with providers encountering logistical challenges while incorporating telehealth into their OUD treatment practices. These challenges had implications for relationship quality with patients and created obstacles to delivering seamless care secondary to technological malfunctions.

> Participant #7, white female, rural practice: "I prefer in-person, I just think the communication is better than telehealth. Telehealth, you can see the individual. But usually if they have kids. . . or I have a gentleman that when I call him on his telehealth day, I have to call him on the phone first period and he has to walk to the neighbor's house to use their internet. . . So he has to go outside, and it takes him about 3 to 5 minutes to get to the neighbor's to be able to use that. . .we've been using telehealth quite a bit, and I actually continued to use that. Once we started doing the every two weeks that they'd come in, I called the individuals that only come in every two weeks on the week that they don't come in, through telehealth. Just to lay eyes on them, 'I'm checking in with you, I'm seeing how you're doing.' "

Table 2. Participant Demographics.

Race	n
White	20
Black/African American	1
Asian/Indian	1
Ethnicity	n
Not Hispanic	22
Age (years)	n
Average	46.5
Range	33-78
Median	46.5
Gender	n
Female	15
Male	7
Rural[a]	n
US Management and Budget Office Definition	13
Urban	n
US Management and Budget Office Definition	19

[a]Rural versus urban practice setting was determined based on the classifications provided by the U.S. Office of Management and Budget. This involved categorizing counties into 2 groups: "urban" (metropolitan) counties, which encompassed those with urban cores containing over 50 000 individuals, and "rural" (non-metropolitan) counties, which included all other counties as per the Office of Management and Budget's criteria.[25]

Only 1 or 2 providers were opposed to using telehealth for OUD treatment using buprenorphine. For example, one said, "to be frank with you, I hate it. I hate Telehealth. It's not meant to be. It might work in other specialties. It is not meant to be in the psych or really the addiction medicine realm. You need to be in the room looking at a real face. Unfortunately, right now, we just don't have enough people that prescribe it that can give the services that we offer. And so we have to do some things in order to bridge to that time" (Participant #11, white male, urban practice). Despite some challenges to using telehealth, positive telehealth experiences were fairly uniform and highlighted the importance of telehealth in improving access to care, especially for behavioral health counseling, and demonstrated value for established patients who benefited from continuous support and treatment. Participants described telehealth as "efficient," "convenient" and "an excellent alternative." One participant said, "I think it's really helpful to have that option, especially because if there's a lack of, or a low number of providers" (Participant #3, white male, rural practice). Another participant said, "I feel that telehealth is amazing and it filled in the gaps and filled in the need during the pandemic and it continues to do so" (Participant #8, female, rural practice). Yet another participant said, "Our psychiatrist, that's the only way she sees patients and she is very successful with that" (Participant #10, white male, urban practice). In general, the sentiment could be summed up as follows: If "you can connect telehealth with urine toxicology that's good" (Participant #5, white male, rural practice).

General needs of patients. Participants noted that OUD disproportionately affected the under-resourced population, and most mentioned that patients faced challenges with 1 or more of the following living essentials: internet, transportation, phone, housing, concomitant counseling. Patients' general needs were underscored in the disproportionate impact OUD appeared to have on the people experiencing homelessness or housing insecurity. Participants highlighted the multiple challenges faced by patients, particularly related to essential living conditions such as internet access, transportation, phone services, housing, and concurrent counseling needs. In general, participants mentioned that their patient populations often lacked resources. For instance, 1 provider said, "Because in some of our rural counties, there's people that they'll sign up for appointments, but then they don't come because they don't have ride or internet or whatever, so yeah. Even in some of the counties that we service, I think there's a need for better services, lack of resources to get those services," (Participant #16, white female, urban* practice). (*Note: This participant's primary practice county was designated as an urban (metropolitan) county, but they described their practice as serving a predominantly rural population.)

These challenges are further illuminated by the perspectives of healthcare providers who emphasized the critical need to eliminate obstacles and the need to consider broader infrastructure improvements. It was believed that not eliminating obstacles to care for patients meant that some patients simply would not get the care they need. One participant described his experience this way:

> Participant #11, white male, urban practice: "This is a population where you have to be focused on removing obstacles more so than any other population because they are a hair away from not coming. I mean, you don't have to tempt these patients not to show. I think you have to eliminate obstacles, and any of those obstacles, I think, have to be built into the infrastructure of how our community works in general. And I think a national WiFi standard would be super beneficial. Especially in these areas that, I mean, it takes 45 minutes to get anywhere, which is often the case for some of our rural areas."

Many participants noted that the pandemic intensified existing needs within their communities, exacerbating challenges for individuals seeking OUD treatment. Participants mentioned lack of internet connectivity, food insecurity, housing insecurity, and transportation issues all being challenges that became more apparent or intensified due to the COVID-19 pandemic.

Table 3. List of Themes From Interviews With Providers.

Coding domain		Theme
Pandemic		Many participants indicated that the pandemic changed their treatment/service delivery but not in way that impeded their treatment/service delivery or patient treatment adherence, and they noted that the pandemic exacerbated existing needs in their communities.
Negative telehealth Positive telehealth	Telehealth experiences	Many participants often encountered logistical challenges when incorporating telehealth for OUD and noted disruptions in their relationship quality with their patients, but they also saw the importance of telehealth in improving access to care, particularly for behavioral health counseling and/or for well-established patients.
General needs		Most participants noted that OUD disproportionately affected the homeless/under-resourced population and most mentioned that patients faced challenges with 1 or more of the following living essentials: internet, transportation, phone, housing, concomitant counseling.
Experience prescribing bup		Most providers prioritized in-person visits and noted stigma surrounding against OUD patient-to-patient, provider-to-patient, and provider-to-provider.
Became interested Lessons learned	Relationships important	Relationships (or personal connections) were important. All or nearly mentioned that the waiver training was helpful and that they received minimal formal training.
Bup training		Most mentioned that the waiver training was helpful and that they received minimal formal training.

> Participant #19, white female, rural practice: "And so when it was really cold, in the dead winter, that posed a challenge because no one wants to sit out there for 10 minutes when it's 10 degrees. And then some of the patients actually would walk down here because they didn't have transportation. So it was more of an ethical issue because you don't want to let them sit outside and freeze the death because you might not be able to get to them right away. So we kind of broke protocol to bring them in the building so they could have a chance to warm up. It's been a real challenge with the COVID pandemic."

Experiences prescribing buprenorphine. Most providers prioritized in-person visits and noted stigma surrounding OUD treatment in the following relationship types: patient-to-patient, provider-to-patient, and provider-to-provider. When asked about their experience providing buprenorphine, providers shed light on their preferences for in-person visits when prescribing buprenorphine. This preference for in-person consultations was influenced by several factors, including the need for effective communication and the requirements of regulatory compliance, such as urine drug screening. It was believed that in-person visits facilitated greater compliance with these regulations, which were seen as being designed to strike a balance between patient accessibility and the safe administration of controlled substances. Additionally, the prescription of buprenorphine requires ongoing monitoring, including the assessment of potential side effects. Stigma surrounding OUD was also noted as influencing interactions between patients and providers and on provider-to-provider relationship dynamics.

> Participant #3, white male, rural practice: "there is a lot of stigma around it, even in the recovery community. And so sometimes even inpatient facilities that are telling people that it's like bad and that you shouldn't be using it and all this stuff. So there's that aspect of it."

Relationships are important. Relationships (or personal connections) were important to most participants. During analysis, personal connections with OUD arose as a significant factor. Most participants reported having a personal relationship with someone affected by OUD. Several participants mentioned having a family member who struggled with OUD and/or they observed the toll that OUD, particularly opiate use disorder, had on their communities. For example, 1 participant said, "I saw what it's doing in our community to family, to friends. I was an ICU nurse for 25 years and I saw the effect that opioids was having on patients and I wanted to correct that" (Participant #2, white female, rural practice). Participants shared both sad and inspirational stories as reasons they became interested in prescribing buprenorphine. These experiences motivated them to do something about OUD and indicated their dedication to addressing OUD-related issues.

Most providers highlighted the value of a relationship-based approach to care when asked about lessons learned. Building strong connections with patients was consistently emphasized as a key factor in effective OUD treatment and support. Many participants spoke about the need to "lay eyes on [the patient]" to build or to maintain rapport and as a reason to keep in-person visits instead of having only telehealth visits. As highlighted by 1 provider, the preference

for in-person visits was not merely a matter of personal preference but a reflection of the deep-seated belief that the therapeutic alliance in OUD treatment thrived on face-to-face interactions.

> "I've had a lot of patients switch from me to another provider who's in-person. And you know why that is? Because they'd much rather see somebody in person. They would. Everybody would. And so the Telehealth thing, while it's a stop-gap measure, that stop-gap measure has to have a shelf life. And I think you need to be very open about that shelf life before you institute it and have a plan in place on how to address it so that it doesn't go longer than six months, I think. Just six months is a long time that in some cases, you're seeing these patients on a weekly or maybe twice a week basis, and you've not shaken their hand, you've not looked them straight in the eye person-to-person. That's a hard thing to build trust, and build rapport, and a relationship with a patient. It's hard to do that. This job, more than almost any specialty, is relationship-based, and those relationships are best . . . It's like a long-distance relationship. Those things can't go on forever. There has to be some in-person connection." (Participant #11, white male, urban practice.)

As illustrated by this provider's statement about patients switching to in-person care, their primary concern was the well-being of those they serve. This dedication goes beyond clinical protocols and underscores an understanding of the intricate web of challenges that individuals with OUD face.

Buprenorphine training. Regarding buprenorphine training, most participants found the waiver training helpful for prescribing buprenorphine. However, the study identified a need for improvement in formal training programs, as many providers expressed receiving minimal formal training on this topic in their educational curriculums.

> Participant #3, white male, rural practice: I got zero training in medical school, unfortunately. I got a lot of training in residency. My residency hospital was the safety net hospital in Minneapolis. And I would say probably over 50% of our patients had substance use issues in various ways. I sought out an elective in addiction medicine during my family medicine training because I knew that I wanted to do it. So I was lucky to have that opportunity, but then the waiver training, if you truly pay attention to it, is actually really helpful and very good and comprehensive. So that, I think if people are truly engaged and paying attention, although, a lot of times they might not be for various reasons, but if they're truly engaged and paying attention, it is a really good training to learn from.

Our data suggest that healthcare professionals recognize the evolving nature of addiction medicine and the importance of staying informed to offer the most effective treatments and support to their patients, often seeking out conferences and supplemental training.

> "Well, I did the waiver course, of course, which is 24 hours for nurse practitioners, or it used to be anyway, whenever I did it. Then from there, I do every other possible thing I can do. Goodness. I did attend, just recently, the ASAM Conference in Florida that they just had. But besides that, I do these: it's PCSS, and that is through SAMHSA. It's these special, one hour basically webinars that are offered. They're normally live, and I think they tape them and you can observe them later, but I do several of those and have. They keep you up to date on things, so I do that. Honestly, anything that's available that I can do, I do because I love it and I want to be up to date on it. I went to Morgantown, West Virginia to WVU. I went up there to see about their COAT Program, which is: I feel like it's nationally renowned as far as what they're doing. They have about 500 participants in their program, and it's been successful for, oh goodness, probably five to eight years now. I'm not sure, because I probably went a couple years ago, but I try to do anything I can. I've been involved, some, with the ECHO Programs. Anything I can. I try to keep up on any current research" (Participant #14, white female, urban).

Discussion

This qualitative study explored the experiences and perspectives of primary care providers prescribing buprenorphine as medication for opioid use disorder (MOUD) treatment and using telehealth in mostly rural areas during the pandemic. Overall, the qualitative findings provide valuable insights into the challenges and opportunities faced by these healthcare providers. The identified themes offer important implications for future efforts to enhance the delivery of MOUD treatment services and improve patient outcomes, with a focus on addressing logistical challenges, stigma, and the importance of fostering strong relationships with patients. Our findings provide a thorough understanding of the challenges and opportunities faced by providers in delivering OUD care in Arkansas and Kentucky. It is important to emphasize that patients have complex needs beyond their OUD care. Additionally, while telehealth is a valuable tool for many providers, many expressed the view that telehealth cannot completely replace the need for in-person care. This consideration should be discussed in the context of expanding telehealth services, with a focus on maintaining ongoing patient-provider relationships and recognizing the limitations of telehealth.

Telehealth and MOUD Access

Overall, this study adds to a growing body of research that telehealth helps assure access to MOUD treatment.[30,31] However, several practice level barriers impede the use of telehealth for prescribing buprenorphine. Some providers raised concerns about their need to conduct in-person urine

toxicology screenings, a concern echoed in other research.[15] A qualitative study of Veterans Administration (VA) health care providers reported that providers questioned how frequently screenings should be conducted[30] and a survey conducted in California found that most PCPs decreased the regularity of screenings.[32] Future research should examine the comparative effectiveness of regular toxicology screenings collected either in-person and remotely.

Training for Prescribing Buprenorphine May Be Needed

Although participants reported that telehealth was effective, they also shared that the brief training required to receive a waiver to prescribe buprenorphine benefited their clinical practice. Much of the prior research showing that telehealth is an effective means for treatment of OUD was conducted during time periods when a federal government required a waiver to prescribe buprenorphine.[33,34] The current study's findings raise questions about treatment quality among providers who have not received formal education or training about providing MOUD and the potential need to reinstate training requirements, which the federal government eliminated in 2023.[35] More research is needed to examine how to increase access to education and training in ways that do not create additional barriers to prescribing MOUD. Further, research is also needed to evaluate whether such education and training affects the quality of and access to such care.

Challenges Exist for Addressing Patients' Social Needs Via Telehealth

Patients' social needs are less easily addressed through telehealth and in many cases affect telehealth visits. As has been found in prior research,[31] providers noted that many of their patients' housing and food insecurities were exacerbated during the pandemic and were difficult to address in virtual encounters. Whether these challenges have attenuated as in-person clinical or social services have resumed is unclear. Because addressing patients' social determinants of health is now considered a critical component of primary care,[36-38] models for successfully linking patients treated via telehealth with supportive social and economic services need to be developed and tested.

Personal Connection With Patients

Many participants in our sample revealed that they had a personal relationship with someone affected by OUD, which either sparked their interest for entering the field of OUD treatment or fostered their dedication to addressing OUD-related issues. Additionally, building strong relationships with patients was consistently emphasized as a crucial factor in effective OUD treatment and support. This is consistent with other studies that have indicated rapport and trust in patient-provider relationships are important factors in providing MOUD, particularly within rural practice settings.[39] Additionally, Madden, et al[40] reported in a recent systematic review that intervention stigma (eg, prejudice and discrimination) associated with MOUD among providers is an important barrier in broader MOUD implementation and uptake.

Study Limitations

This study is not without limitations. The sample of participants involved all self-selected into the study which may present some degree of selection bias. Also, since most participants were white and female, our findings do not have a racially and gender diverse representation of perspectives or experiences. In parts of the South, including the Little Rock metro area, there are locally higher concentrations of Black PCPs, but in general, in Kentucky and Arkansas, most PCPs are white.[41]

Conclusion

In conclusion, the study provides valuable insights into the experiences and perspectives of healthcare providers in delivering OUD treatment and telehealth services in mostly rural areas during the pandemic. The identified themes highlight the need to address logistical challenges and stigma while emphasizing the importance of fostering strong patient-provider relationships. These findings can inform future efforts to enhance OUD treatment services and improve patient outcomes, particularly in the context of telehealth, in rural areas, and during challenging times like the COVID-19 pandemic.

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