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Addressing Methamphetamine Use in Primary Care: Provider Perspectives

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Introduction: The opioid epidemic has evolved into a combined stimulant epidemic, with escalating stimulant and fentanyl-related overdose deaths. Primary care providers are on the frontlines grappling with patients' methamphetamine use. Although effective models exist for treating opioid use disorder in primary care, little is known about current clinical practices for methamphetamine use.

Methods: Six semistructured group interviews were conducted with 38 primary care providers. Interviews focused on provider perceptions of patients with methamphetamine use problems and their care. Data were analyzed using inductive and thematic analysis and summarized along the following dimensions: (1) problem identification, (2) clinical management, (3) barriers and facilitators to care, and (4) perceived needs to improve services.

Results: Primary care providers varied in their approach to identifying and treating patient methamphetamine use. Unlike opioid use disorders, providers reported lacking standardized screening measures and evidence-based treatments, particularly medications, to address methamphetamine use. They seek more standardized screening tools, Food and Drug Administration–approved medications, reliable connections

to addiction medicine specialists, and more training. Interest in novel behavioral health interventions suitable for primary care settings was also noteworthy.

Conclusions: The findings from this qualitative analysis revealed that primary care providers are using a wide range of tools to screen and treat methamphetamine use, but with little perceived effectiveness. Primary care faces multiple challenges in effectively addressing methamphetamine use among patients singularly or comorbid with opioid use disorders, including the lack of Food and Drug Administration–approved medications, limited patient retention, referral opportunities, funding, and training for methamphetamine use. Focusing on patients' medical issues using a harm reduction, motivational interviewing approach, and linkage with addiction medicine specialists may be the most reasonable options to support primary care in compassionately and effectively managing patients who use methamphetamines.

Key Words: stimulant, cocaine, amphetamine, primary care

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In the shadows of the coronavirus pandemic, death from drug overdose has continued to escalate in the United States.¹ Now in its fourth wave, the opioid overdose epidemic is presently characterized by combining opioids, including illicit fentanyl, with methamphetamine and/or cocaine.^{2,3} Before and throughout the coronavirus pandemic, unprecedented federal, state, and health system investments to combat the opioid epidemic have been underway.⁴ Although there is no clear causal impact of this investment on reducing overdose deaths and other sequelae of addiction, there has been a widespread expansion of addiction medication access to patients in primary care.^{5–7}

Primary care practices and providers are increasingly engaged in treating opioid use with Food and Drug Administration (FDA)-approved medications, such as buprenorphine and naltrexone. However, they are now facing stimulant use disorders for which there are no currently indicated pharmacotherapies.^{8–10} One study found that primary care providers have lower comfort and perceived self-efficacy in treating patients who use stimulants than other substances.¹¹ Furthermore, effective psychosocial interventions for stimulant use, such as contingency management, are challenging to implement even in typical specialty addiction treatment organizations, let alone primary care.^{8,12}

Little is known about primary care providers' experience with the emergent "twin epidemic," particularly around practice changes within the era of the COVID-19 pandemic.^{11,13} To date, only one study from Australia has explored primary care providers'

perspectives on addressing methamphetamine use.¹¹ The sample was limited to only 8 providers in a rural area of Australia with low stimulant use rates. The study's findings focused on the barriers that impact the quality of care for patients with methamphetamine use, including workforce shortages, social stigma, lack of knowledge, and a challenging referral system. Thus, a larger sample of providers, who work with more highly prevalent methamphetamine use affected patient populations, may be important to interview. During this time of escalating stimulant use, it is essential to investigate how to address the needs of patients and providers regarding methamphetamine use.

Primary care providers often do not recognize or treat methamphetamine use because of limited clinical experience, knowledge, and treatment options.^{14,15} In addition, methamphetamine use is perceived as challenging to treat because of its highly addictive properties and associated agitation, paranoia, and delusions.^{16,17} However, many patients using methamphetamine present in primary care with a range of comorbid and chronic medical and behavioral health conditions. As such, primary care is well positioned to prevent long-term health consequences of methamphetamine use.^{18–22} Despite the lack of availability of evidence-based medications for methamphetamine use, it is essential to understand current approaches that are helping providers address methamphetamine use in primary care settings, given the limited tools at their disposal.

The present qualitative study systematically explores primary care provider experiences with managing methamphetamine. The findings illuminate current practice and can potentially inform future research and practice implementations.

METHODS

Design

A qualitative study was conducted with primary care providers working in clinical settings across the State of California (United States). In total, 6 group listening sessions were held. Participants were selected through purposive sampling with recruitment materials distributed through several statewide and regional email lists. The California Department of Health Care Services forwarded the recruitment flyers to statewide, regional, and county leadership at behavioral health departments with connections to community or substance use clinics. The recruitment flyers were also distributed via the California Primary Care Association, Community Clinic Association Los Angeles County, and other regional community health clinic network listservs. These listservs were composed of physicians and medical providers working in community health settings. Primary care physicians, nurse practitioners, and physician assistants participated and were offered a \$250 honorarium for a 90-minute virtual group meeting. Participants were recruited for 4 groups targeting providers in general primary care settings and 2 groups with participants working in office-based opioid treatment settings. The intended group size ranged from 5 to 10 providers to allow for a variety of perspectives and to reach sufficient data saturation.²³ All session attendees completed a registration form to collect demographic information. Participants were asked about their role, specialty, and whether they were waived to prescribe or currently prescribe buprenorphine.

Six group listening sessions were conducted in July and October 2021 by 2 senior researchers (M.M., R.R.), who have clinical experience, mixed methods interviewing experience, and addiction research expertise. The lead researchers initially drafted semistructured interview guides focused on stimulant use and its consequences more broadly, which evoked discourse about provider experiences with patient methamphetamine issues. Interview guides are available from the author (M.M.). The questions were devised based on the project aims and the existing literature and then discussed with the broader research team. Two groups of physicians who have extensive experience with addiction medicine in primary care settings were also consulted.

Participants were asked about patient identification of methamphetamine use, their decision making, current approaches for intervening, perceived barriers and facilitators to offering quality care, and potential areas for improvement. The interviews were recorded via a secure videoconference platform. Permission was granted from the participants to record, and video was optional. Transcripts were transcribed through transcription software and were not returned to participants for corrections. Staff members took anonymized field notes during the interviews. The Department of Health Care Services Institutional Review Board designated this project as not research or exempt.

Data Analysis

Transcripts were analyzed using a theoretically interpretive, inductive thematic analysis to uncover providers' experiences of treating patients who use methamphetamine.²⁴ A reflexive thematic analysis was chosen to generate knowledge around current practices with stimulant use.²⁵

Two researchers analyzed each interview in Microsoft Word and Dedoose and coded all 6 transcripts of the listening sessions. A preliminary codebook was constructed a priori using the interview guide's topic categories for initial themes: patient identification, stigma, clinical response, barriers, and needed improvements. The transcripts were coded independently for emergent themes through open coding and added to a working codebook. Inconsistencies were discussed until consensus was achieved. After coding 3 transcripts, a qualitative expert (C.B.J.) was consulted to provide feedback on the codebook. Codes were quantified and crosscut to understand relationships between themes in the data. Subthemes with low-volume responses were removed or merged with similar subthemes. Relevant aspects of this project are reported following the Consolidated Criteria for Reporting Qualitative Research (COREQ; See Supplemental File 1, <http://links.lww.com/JAM/A363>).²⁶

RESULTS

Of the 71 providers who signed up to participate, 38 attended and participated (53.5%). The discourse of one marriage and family therapist, who inadvertently participated in an interview session, was excluded from the data analysis. Table 1 presents the demographic characteristics of the sample. Approximately 87% of the providers were waived to prescribe buprenorphine, a medication for opioid use disorder, and nearly 70% of the participants were actively prescribing buprenorphine.

Four themes were identified as key to understanding primary care providers' current practices around methamphetamine

TABLE 1. Demographic Characteristics of the Sample (N = 38)

Characteristics	n (%)
Role	
Physician	30 (78.9)
Nurse practitioner	5 (13.2)
Physician assistant	3 (7.9)
Specialty	
Family medicine	25 (65.8)
Psychiatry	6 (15.8)
Internal medicine	3 (7.9)
Emergency medicine	2 (5.3)
Infectious disease	1 (2.6)
Pediatrics	1 (2.6)
X-waivered prescriber	
No	4 (10.5)
Yes	33 (86.8)
Unknown	1 (2.6)
Currently prescribing buprenorphine	
No	7 (18.4)
Yes	26 (68.4)
Unknown	5 (13.2)

use: (1) problem identification, (2) clinical management, (3) barriers and facilitators to quality care, and (4) needs to improve the quality of care. Emergent themes are displayed with their frequency of excerpts in Table 2.

Problem Identification

Problem identification emerged as a consistent and robust theme. Representative quotes are shown in Table 3. Providers discussed the following subthemes: (1) signs and symptoms from patient history and physical examinations, (2) screening procedures, and (3) characteristics of people who use methamphetamines.

Signs and Symptoms From the Patient History and Physical Examinations

Participants highlighted the manifestation, complexity, and range of physical, behavioral, and substance use symptoms that often indicate signs of methamphetamine use. Behavioral health issues were mentioned in 73 excerpts, physical health 67 times,

and other substance use 30 times. Hallucinations, delusions, and paranoia were the most commonly reported psychiatric symptoms (n = 30). Four participants discussed patients' somatic hallucinations expressed by "delusional parasitosis or the feeling that bugs are crawling on their skin when in fact, there are no bugs." Providers were also attuned to cardiovascular complications, skin infections, dental problems, and polysubstance use among their patients (Table 3).

Screening Procedures

Several providers mentioned using laboratory tests and general screening questionnaires, but there were no formal methods for screening procedures (n = 46). For laboratories, participants used urine drug screening. Medical history questions and non-specific associated signs from the patient physical examination were also used to determine methamphetamine use in patients (Table 3). Other standardized screening tools were sparingly mentioned, such as the CAGE (Cut Down, Annoyance by Criticism, Guilty Feeling, Eye Openers) and the DAST (Drug Abuse Screening Test). The assessment of methamphetamine use was sometimes confirmed through "a fair amount of self-disclosure" from family, friends, or the patient themselves.

Characteristics of the Patients Using Methamphetamines

Providers observed patterns, reasons, and prevalence of methamphetamine use in patients, which emerged as a sub-theme (n = 67). Methamphetamine use "shows up in everybody" across all age groups (Table 3). Methamphetamines were used "to stay awake on the street" for those facing homelessness and as a typical "party drug" in some LGBTQ communities. Many participants noted the shift in prevalence from primarily opioid use to "methamphetamine with some opioid course." There were patterns of patients maintaining abstinence from opioids with medications for opioid use disorder despite continued methamphetamine use. Fentanyl contamination of the stimulant supply also arose as a point of concern.

TABLE 2. Inductive Themes From Participants' Description of Current Practices for Stimulant Use

Domains	Theme	Description	Frequency	Subtheme	Frequency
Current practices	Problem identification	Providers discuss the signs, symptoms, and methods to identify patients using stimulants.	276	Signs and symptoms from patient history and physical exams	170
				Screening procedures	46
				Characteristics of patients using stimulants	67
Provider needs	Clinical management	Providers explain how they decide to clinically intervene with patients with stimulant use problems, including the protocols, treatment, and approaches.	134	Deciding to intervene	15
				Workflows and protocols	39
				Treatment approaches	93
Provider needs	Barriers and facilitators to quality care	Providers describe the barriers to patients accessing care for stimulant use on the patient, clinic, and system levels.	180	Patient level	44
				Clinic level	39
				System level	17
Provider needs	Needs to improve the quality of care	Providers describe the factors that support the identification and treatment of stimulant use and what future resources are needed.	33	Negative attitudes	74
				Facilitators	10
				Needed resources	23

TABLE 3. Themes and Supporting Quotes of Current Clinical Practices to Address Stimulant Use (N = 38)

Theme	Subtheme	Participant Example
Problem identification	Signs and symptoms from patient history and physical examinations	“Often the patient’s appearance, for me, if they’re street homeless, maybe disheveled, maybe poor hygiene, but also the skin infections are usually a clear giveaway. Not always, but their behavior usually may be more agitated, pacing, pressured speech: the things you would anticipate someone in a mania to be experiencing if they’re acutely intoxicated.”
	Screening procedures	“Nothing specific. But a lot of nonspecific things. If you do labs to assess for heart failure that turns out to be positive in a young person with no history of coronary artery disease, that would be something that would lead me to consider stimulant use disorder.”
	Characteristics of stimulant use	“Honestly, one of the things that’s really surprised me over the years is how many people have been using these drugs for decades, in some cases, and it’s just the way they are. It’s how they function. And you wouldn’t necessarily know, unless you had a really keen eye, that they’re using as often and for as long as they have. Because they really haven’t had problems as far as cardiomyopathy [is] concerned, or even skin infections, or any of the things we commonly would look for. But we pick up many in screenings that are done for different reasons.”
Clinical management	Intervening with patients	“I treat them like I would any other patient. I manage it the same way I do patients who smoke. I make sure they understand the risks, I let them know I understand their situation. I ask them if they’re ready to try to stop. If they’re not, make it clear to them that if at any point they are, there are things where you can provide medical support. And just let me know at any point, even if they’re [not] interested, we can talk about it and just continue to treat all their other medical issues as best we can under the circumstances.”
	Protocols	“Well in our clinic, we just refer anyone who screens positive for substance use, who was willing [...] We have a substance use treatment program with therapists and alcohol use and drug use counselors. So [we] just treated along that same pathway, but it starts with a referral to behavioral health. So, it can be tricky because if the person doesn’t want help and they say no, but otherwise, we do try to get them into the standard substance use program that we use.”
	Treatment	“We’ve been using Mirtazapine as a kickstart methamphetamine MAT [Medication for Addiction Treatment] at about 30 milligrams [...] I don’t know. I am like throwing up my hands. I don’t know if that works or not works, but it helps build that alliance, that I’m here for you for your methamphetamines too. And then I try to get them [to] somebody who’s better at motivational interviewing than I am and work on that issue.”

Clinical Management

Providers’ approaches to managing and treating methamphetamine use were divided into subthemes (Table 3): decisions to intervene with patients, practice workflows and protocols, and treatment approaches (n = 134).

Deciding to Intervene

When providers decided to raise the subject of patient methamphetamine use, they used motivational interviewing to assess “their readiness for change” (Table 3). Some providers noted the transformation “from the abstinence-only model to incorporating more harm reduction.” Participants also mentioned the importance of building rapport, empathically connecting with patients’ own goals and not necessarily methamphetamine use, and focusing on health concerns that patients wanted to address. Providers focused on meeting patients where they were in their process and treating their primary concerns while tactfully and purposefully motivating them to manage their methamphetamine use.

Workflows and Protocols

Onsite patient care and reliable referrals to addiction specialists were mentioned in the workflows and protocols subtheme (n = 39). “Warm handoffs” to an integrated behavioral health clinician had the best results when providers “connected [patients] at the time of their medical department appointment.” Integrated behavioral health options included consulting psychiatry, psychotherapy, substance use navigators, and outpatient therapy groups (Table 3). Providers also recommended increasing “the

frequency of primary care visits” and being “flexible as far as getting people in, rescheduling them, [and] trying to get them refills.”

Treatment Approaches

A range of pharmacological and psychosocial interventions was mentioned but with little confidence in their effectiveness (n = 93; Table 3). Psychosocial interventions were mentioned less frequently than medications and included contingency management, physical exercise, motivational interviewing, and nutritional approaches. Participants also used medications for opioid use disorder (buprenorphine, naltrexone), antidepressants (mirtazapine, bupropion), mood stabilizers, or antipsychotics (quetiapine, olanzapine) with the hopes of impacting methamphetamine use.

Barriers and Facilitators to Quality Care

Barriers to quality care for methamphetamine use were categorized at the patient, clinic, and system-level (n = 170). These categories mirror the inner and outer setting of the Consolidated Framework for Implementation Research, a comprehensive framework that consolidates implementation theories.²⁷ Negative attitudes of providers and patients toward methamphetamine use emerged as a subtheme. Table 4 provides representative quotes.

Patient Level

Many challenges existed for patients to access care (n = 44). Reliable patient engagement was an oft-mentioned barrier, including “many missed appointments or no-shows.” Motivation to reduce methamphetamine use, especially compared with other

TABLE 4. Themes and Supporting Quotes of Provider Needs to Address Stimulant Use (N = 38)

Theme	Subtheme	Participant Example
Barriers and facilitators to care	Patient level	“I think if they don’t have housing or access to a phone or proof of insurance, it’s hard for them to get care, hard for them to follow up. I mean, my patient that I just saw yesterday who uses cocaine was telling me she drinks alcohol and uses cocaine. I’ve been treating her with Vivitrol for the alcohol. She tells me it’s expensive to come to the clinic, gas is really expensive, my time, because it’s hard for her to come in once a month to get a Vivitrol injection, and also, she’s burned her bridges with her family, so she’s going to be homeless soon. I mean, if they don’t have all that stuff that you need to participate, you have to have a phone to call and make an appointment, you have to have a car or a way to get to the clinic, and then you have to have proof of insurance. You don’t have those things lined up, [and] you’re not going to make it to care or get successful treatment. So, it’s just poverty and other stuff they’re facing.”
	Clinic level	“Well, and in terms of screening [...] So part of the criteria for something you screen for is you have to be able to have a treatment available. And so I think that’s where we run into issues with meth, at least up to this point.”
	System level	“So there has to be time given for learning, but the way community clinics push is that if a provider isn’t doing a face-to-face visit, then they’re not making money. It’s a really bad model. And so I don’t know if we have to go to value-based care, or it’s just opening up the way we bill or funding clinics better.”
	Attitudes	“This might be aspirational. But I would just love to see the mental model change, just across our general culture and across our medical culture. And really, we say this all the time with opioids, but to just treat addiction as a chronic brain illness. And that really, all the dominoes fall once you start saying, “You know what, this is not that different from seizures or Parkinson’s disease.” So to me, that’s what I aspire to.”
	Facilitators	“Outpatient groups—in-person or they do Zoom meetings... they can also help people get into residential treatment, detox, and residential treatment programs, which for our street homeless if you can get them willing to do that, it’s perfect because then they have somewhere to go and live for a while. Medi-Cal pays for it, and you can have up to 3 mo of somewhere to stay, and then from there, support getting work, going into sober living. But it’s a hard sell, particularly with meth use.”
Perceived needs to improve services	Needed resources	“I think they need to fund federally qualified health centers better, and not just pay for face-to-face with an MD or PA, but to pay for the behavioral health visits, to pay for drug and alcohol counseling, so that we can hire people to do this and have a more robust behavioral health program. Because the doctor can’t do it alone, we need help, and we need people to refer [to].”

substances, was particularly low. Providers also cited social determinants that impacted care (Table 4). One provider illustrated these barriers by describing the “chaos in their life,” including limited housing, transportation, and financial security.

Clinic Level

The lack of evidence-based medications was a significant limitation for many providers: “It’s so much harder to help them [if] there aren’t the tools. There are no [...] simple medications that work.” Others highlighted the ethical challenges around screening if no treatment exists (Table 4). Some also struggled with the balance of prescribing medications for opioids and the risks of more significant frustration and burnout associated with treating methamphetamine use (n = 39).

System-Level Barriers

On a system level, participants noted the barriers to funding and insurance coverage for methamphetamine use treatment (n = 17; Table 4). Many providers are not trained to treat methamphetamine use and have limited access to transfer patients to addiction medicine specialists or residential addiction treatment settings. Systemic racism was also reported to impact access to affordable and culturally appropriate methamphetamine use care for historically marginalized patient populations, such as indigenous and African American communities.

Negative Attitudes

Stigmatizing attitudes and beliefs emerged as barriers among staff and the patients themselves (n = 74). Patients reportedly often deny methamphetamine use due to shame and instead want to focus on somatic symptoms: “when you try to bring up [that] the meth use may be contributing to their physical,

either feelings or actual problems, they want to focus on that, rather than talking about the meth use.” Providers mentioned that patients also fear their children being removed, encountering family members at the clinic, and fearing potential alliances between providers and law enforcement.

Among primary care providers and other staff, heightened negative attitudes reportedly exist toward patients using methamphetamines. One participant commented on “the hierarchy” of substances, where patients using methamphetamines are viewed as more challenging to treat than other drugs. Patients who use methamphetamines are often the most marginalized and stigmatized in health care settings, which impacts their access to quality care. Providers reported that front desk staff felt challenged working with these patients because of their agitation and perceived aggressiveness. Everyone in the clinic “gets a little more worried when the patient is more erratic and agitated.” Providers also reported experiencing verbal and physical abuse from patients with methamphetamine use and were concerned for their personal and clinic safety. Among physicians, methamphetamine use was often seen as a “revolving door,” where patients keep coming back without signs of progress. Another provider commented on the “unwritten rules of power dynamics” between physicians and patients where providers used urine drug screening punitively. One participant advocated viewing methamphetamine use more like a chronic disease (Table 4). Although less stigma around methamphetamine use in addiction medication clinics seemed to exist, providers still reported using abstinence-based approaches and unfavorable views of contingency management.

Facilitators

Only a few beneficial clinical practices were reported (n = 10). Several providers highlighted the asset of having reliable

referral options for residential addiction treatment programs and peer recovery support groups, such as Narcotics Anonymous (Table 4). Another provider appreciated the requirements to get “a little extra training.” Another participant discussed what was working well for treating patients with methamphetamine use: “Write whatever prescriptions they need for whatever [psychiatric medications] they need and get them linked to whatever they’re willing to do.” Some clinics could tackle the problem better with a multidisciplinary team, meeting regularly, with linkage to psychiatry and counseling. During the COVID-19 pandemic, many clinics could also engage patients better by increasing the frequency of remote visits.

Needs to Improve the Quality of Care

Providers reflected on what practices were needed to manage methamphetamine use better ($n = 23$). Increased support for implementing and funding contingency management, integrated behavioral health services with clinicians skilled in dealing with methamphetamine use disorders, and safe housing were needed to improve services overall (Table 4). In addition, referrals to specialty care are necessary: “The doctor can’t do it alone, we need help, and we need people to refer [to].” For increased identification of patients, providers recommended “more consistent and [...] specific screening.” Participants also desired effective FDA-approved medications and community of practice platforms to share updates on treatments and resources.

DISCUSSION

As with the opioid epidemic, primary care is now situated to play a critical role in preventing overdose deaths and health complications related to methamphetamine use. Primary care providers express a sense of urgency and alarm about the morbidity and mortality of methamphetamine use. They report using a broad array but not a standardized variety of medical and psychosocial approaches to identify and treat methamphetamine use, with little confidence in their effectiveness. Currently, primary care providers seem to be missing knowledge, skill, or evidence-based resources to address methamphetamine use effectively.

However, only recently has primary care successfully overcome similar and distinct barriers to care for patients with opioid use disorders.^{28–30} Integration of pharmacological and psychosocial interventions for opioids has expanded unprecedented access to treatment and offers important lessons for treating methamphetamine use in primary care.^{31–33} Evidence exists that methamphetamine use decreases over time for persons treated with buprenorphine.³⁴ Still, there are no guidelines or effective treatments for patients with co-occurring or methamphetamine use disorders singularly.^{33–36} Although psychosocial approaches for methamphetamine use disorders may be effective, implementing and sustaining these in the primary care environment merit more study.^{8,12,37} As expected, there was less interest in psychosocial than pharmacological methods.

The results in this study validate and extend the findings from a small Australian study investigating primary care providers’ perspectives on methamphetamine use, documenting similar barriers to effective care.¹¹ With a larger sample and among providers exposed to more patients with methamphetamine use challenges, the present study offered more detailed

insights into how primary care providers currently identify and treat methamphetamine use beyond the barriers to treatment.

With the limited access to evidence-based treatments and specialty care for the treatment of methamphetamine use, primary care providers may find utility in methods such as motivational interviewing, addressing patients’ comorbid medical concerns, and encouraging patients to decrease their use with harm reduction methods. Our findings showed that providers address various associated medical, psychiatric, and sometimes housing and other social issues. Several providers referenced treating methamphetamine use like any chronic disease, aligning with a substantial body of conceptual and clinical models.^{38,39} Treating the physical sequelae of methamphetamine use through personalized and pragmatic primary care, especially in patients with less severe use, may be effective in the long term for the health and well-being of patients using methamphetamines.

Providers also highlighted patients with methamphetamine use are at heightened risk for stigmatization because their behavioral and psychiatric manifestations seem more challenging to treat. Such symptoms are often a consequence of acute or chronic methamphetamine use.²² Practical methods are needed to reduce stigma, including supporting patients and their families across the continuum of care for the problems they wish to address.

These findings should be evaluated in light of some limitations. Providers with prior experience and investment in treating opioid use disorder were more likely to volunteer for these group interviews, limiting the results’ generalizability to primary care providers with significant addiction treatment experience. Those who agreed to participate seemed to encounter larger populations with methamphetamine use, have a specific interest in caring for patients with methamphetamine use and substance use, and have taken additional steps to become x-waivered to begin prescribing buprenorphine. These providers may be more informed by their experience in substance use treatment, which may differ from more general primary care providers who have not directly taken on the care of addiction in their practice. The providers in the sample still offered valuable insights into the identification and treatment of methamphetamine use in primary care settings. Primary care providers are likely facing similar barriers in providing quality care for patients with methamphetamine use. Still, future research should explore the specific issues providers face with more limited addiction treatment experience. In addition to methamphetamine use, there were mentions of cocaine, but this was not a predominant theme. The findings may not be generalizable beyond primary care settings in California because most providers encountered methamphetamine. Future research should explore regional differences in addressing cocaine and methamphetamine use in primary care settings. The sessions were also conducted over videoconference in a group format. This methodology may have reduced comfort levels and the depth of the discourse.

CONCLUSIONS

Primary care providers face numerous challenges in effectively addressing methamphetamine use among their patients. Until FDA-approved medications are available and specifically indicated for methamphetamine use disorders, harm reduction approaches and dependence on linkage with specialty addiction treatment services are presently the most realistic options. There

may be considerable benefit in treating patients' primary concerns while at the same time using empathic motivational enhancement techniques to build patient desire to address their methamphetamine use problem.⁴⁰ Because persons living with methamphetamine use disorders may be among the most negatively perceived patients in primary care, strategies to reduce stigma would be valuable.

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