

## Appendix Table A: Themes on Best Practices for Creating and Providing an Addiction Curriculum in Family Medicine Residency Programs

### 1. Origins in Launching the Curriculum

The launch of an addiction curriculum often originated with a passionate faculty or resident, dubbed an *addiction champion*, who sought out additional addiction training and spread their enthusiasm and knowledge for the topic.

As one participant described,

“I got really excited about buprenorphine in 2010, got online, and got my X waiver. . . . [Then] I started doing faculty development sessions and teaching everyone on faculty about buprenorphine and got permission from the medical director to start prescribing buprenorphine. And, of course, . . . that catches on . . . people got interested and wanted to do more.” [P1]

Initial inspiration appeared to *stem from the opioid epidemic*, the associated surrounding *cultural climate*, and *personal stories*, which encouraged faculty and residents to learn how to treat opioid use disorder; curricula were later expanded into other topic areas.

“The opiate problem [was] just devastating here. We didn’t really have a choice. In 2012 a couple of the providers were just like, ‘We can’t ignore this as a problem. We need to start addressing it. There isn’t enough treatment available in our community. My patient is suffering, and there’s something that I could do to help them. And I just need to get this extra training.’” [P3]

Also important was for these addiction champions to find *mentors* to help support their work.

After addictions champions’ initial launch efforts, getting *faculty buy-in* and *clinical leadership support* and *providing faculty development* to train faculty across the program are then important.

“You’ve got to have your [faculty] on board. If the rest of your faculty aren’t on board, it’s an uphill battle and it’s hard to get that buy-in. But once you’ve got the rest of your faculty on board, this is the direction the program is going. There’s a 1- or 2-year transition period

where the senior residents have not learned this . . . but after 2 to 3 years, it becomes the norm for what they expect to get when they get here.” [P5]

“Leadership as proponents helped us a ton. . . . We wouldn’t have gotten the fellowship or the consult service, like anything off the ground, without our chairs fighting for us.” [P9]

Once addiction champions and faculty and leadership were on board, programs expanded their training through *grant funding*, which often involved hiring *multidisciplinary nonclinician providers*, such as office-based addiction treatment (OBAT) nurses, social workers, and recovery coaches. These personnel were able to off-load duties from providers, had significant clinical duties, and were key personnel in further expansion, such as starting *addiction tracks and fellowships*.

“Once we got grant funding, we hired a patient navigator, hired a social worker, and used money for a contingency management program. And so now it’s a much better-rounded program that is largely run by nonphysicians.” [P1]

“When we got the nurse care manager, that made a big difference because she can handle so much outside the visit. . . . There’s always like a last minute refill needed or the crisis that needs to be handled. . . . That burden initially was falling just on the prescribers, and that was just getting overwhelming.” [P6]

## **2. Importance of Experiential Learning Opportunities**

When developing a curriculum in addiction medicine, creating experiential and clinical learning opportunities is essential. Solely offering didactic education is not sufficient.

On residents learning to start buprenorphine, one respondent shared:

“Over a month [in the addiction clinic], they’re at least starting four or five people on Suboxone and figuring out what strategy do we want to use. . . . You can read all that all you want. But I feel like when you’re doing it, it’s different.” [P6]

Residency programs offer residents various experiential learning opportunities.

“We have a month where the interns go to methadone clinic, to outpatient treatment, inpatient treatment, residential treatment. . . . They go to [a] needle exchange to see what’s out there and what the community can do. And then in the R2 year, we have a dedicated addiction month. . . . They go to a detox and rehab unit and to a day program for pregnant

women who are struggling with substance abuse and pregnancy. . . . They follow these women longitudinally, and then the babies go back to the residents.” [P7]

With this approach, residency programs are *incorporating addiction into primary care* and treating it as a *core competency* and similar to other *chronic disease management*.

“Patients with OUD are triaged by the OBAT nurse and intentionally placed on the residents’ schedules. . . . The thinking [is] that this should be part of the care that we provide [in] family medicine and primary care. We felt it was important that they learn this just as much as they learn, like hypertension management, diabetes, etc. So we intentionally structured it that way. And we put in some loose expectations that [the residents] follow 10 continuity patients with OUD, five on bup and five on naltrexone . . . not super high numbers, but enough that they had kind of a basic foundation.” [P10]

“So the core competency we expect in our residency program is that everyone should feel comfortable with basic medications for opioid use disorder management . . . with buprenorphine and naltrexone . . . and managing methamphetamine with bupropion and mirtazapine prior to graduation.” [P5]

Residency programs use *different clinical models* for residents to treat patients with addiction, though many have arrived at using a combination of specialized half-day *addiction clinics*, which can address more complex patient needs or intakes. More stable patients with SUDs are incorporated directly in resident and faculty continuity primary care clinics.

“The majority of folks who are relatively stable in recovery remain managed by primary care while the addiction consult clinics tend to be people who [have] . . . 80 things going. . . . We try really hard to sort of move the less complex patients onto [continuity] panels.” [P2]

Some residency programs employ the faculty member or preceptor as the continuity provider for the patient; other clinics have residents providing continuity. Trying to preserve continuity is vital in practicing trauma-informed care.

“The patients identify the faculty member as their continuity provider. So while they’re seeing the residents and then having a precepting visit, they know that there’s one person who knows them well looking out for them, and I think that helps for us to balance training [residents] in a concentrated way, but then also have the patient not feel like they never know the person they’re seeing.” [P9]

Creating *continuity* in the outpatient setting not only improves patient outcomes but also helps resident learners find caring for this patient population to be *rewording work*; it should be prioritized when possible.

“When you do 6 months of inpatient, and it’s just like all bad outcomes, and just breaks your heart every single time at some point . . . that emotional sort of like pendulum where like, I don’t want to deal with addiction patients.” [P6]

“But then when the residents have the chance of working with them when they are in recovery . . . now they’re stable on Suboxone and now they have a job and now their family is stable and their housing is stable and . . . and see what an impact we have and . . . it’s the hands-on and continuity that make the difference. It’s so much different than when they are on that journey with the patient.” [P10]

### **3. Didactics Offered**

Coupling experiential opportunities with didactic learning is important. In addition to so-called bread-and-butter topics, like introductions to opioid use disorder, alcohol use disorder, tobacco use disorder, safe prescribing of opioids, chronic pain management, and complex case reviews, some innovative high-yield topics that residents seemed to enjoy included a values exploration around substance use disorders, introduction to the concept of harm reduction, stimulant use disorder, cannabis use disorder, urine drug screen interpretation, different methods of buprenorphine induction, stigma, adverse childhood events, and trauma-informed care.

One participant described a values clarification exercise:

“I would ask a few provocative questions like, is all drug use bad and when is it bad? Where? By whom? For what reasons? I would then have them do some self-reflective writing, and then we would open up and have conversation. We often will talk about how, when we have family members who use drugs, there are certain emotions that arise for us when we witness drug use . . . particularly among pregnant patients and we just try to tease apart where we’re coming from.” [P1]

Another participant described a hands-on harm reduction workshop from people with lived experience using drugs:

“We had a workshop from an outside speaker on harm reduction strategies and techniques . . . very tangible things that we can discuss with patients in the exam room, and then they bring supplies for [residents] to see, because, so often, we are talking about strategies [that patients] can use to more safely inject or smoke, but [the residents] have never seen the

actual equipment . . . so the residents get to touch the equipment, see what the process is of like injecting, what are all the materials, and why they should be using this and not that.” [P4]

Many programs originally had the buprenorphine waiver training as part of intern training. However, because this training is no longer required, programs are now providing shorter versions of this training for interns to get them comfortable with the basics of MOUD. Other core topics are then interspersed through second and third years during designated didactic time.

Programs also shared the importance of training residents in *communication skills*, particularly motivational interviewing using behavioral health faculty.

#### **4. Barriers Encountered**

As residency programs started providing more addiction care, they commonly encountered *stigma*—from nurses, medical assistants, front desk staff, faculty, and residents.

“We definitely had some people who had the attitude that opiate use disorders [are] a moral failing. There’s also a lot of hesitancy to understanding addiction as a chronic disease and resistance [to] harm reduction. It’s hard to get them to change some of those deeply set attitudes, and we’re still struggling with that from time to time. . . . We still hear dehumanizing things.” [P3]

“There definitely were a couple of residents you could get the sense that there was this unwritten stigma and bias. They just didn’t want to say out loud, but they just didn’t care. And they’re like, if you’re telling me to know this, I’ll learn it. But I don’t see myself really doing this . . . and that has really gotten better over the last probably 4 or 5 years as medical schools have built in addiction medicine into their curriculum. It’s now accepted as a concept of a chronic disease.” [P5]

Some strategies to change clinic culture included very intentional individual conversations, trainings, and lunchtime discussions.

“We’ve got all of our doctors and nurse practitioners and PAs [buprenorphine] waived. We had some sit-down sessions with our nursing staff and front office staff about what we were doing, and kind of sort of work together around that to reduce stigma and [so] people recognize that this is a chronic disease, and that our responsibility was to treat our patients with chronic diseases.” [P11]

One faculty member described recruiting a nursing staff member to become a nursing champion to rally and engage their peers around addiction.

“She got to know the patients really well and was able to advocate to her peers. So instead of it being like us [doctors] telling them what to do, and then you get that power resistance, it was more like this nurse was really enthusiastic . . . and other nurses came around to her enthusiasm, appreciated her support, and then they started to see the wins for patients that were really struggling.” [P3]

When addiction programs were in their early stages, addiction champions found their peers had little experience with addiction. Thus the champions found themselves providing clinical support for their cofaculty members.

“When we first started, faculty had their buprenorphine waivers, but they had never seen a single patient or prescribed, so we needed to build faculty capacity before we expanded this to all residents. So, for the first 6 months, I was like the backup person. I got a lot of calls. . . . We fortunately had a receptive bunch of faculty there being like, ‘I’ve never done this before, but like I get why you’re doing it, and we’ll make it work.’ So they called me and then we also hosted a series of talks for faculty and residents, and they gradually became more and more comfortable.” [P4]

Patients struggling with addiction can also be a *challenging patient population* to work with and at times feel emotionally draining.

“I think the hardest part really is walking residents through the understanding that not every patient is going to go well. . . . This is a different population with a lot of untreated personality disorders and underlying coexisting dual diagnoses, and a ton of trauma that has not been addressed and that comes out in their treatment. So I think that part is hard because a lot of residents expect to be able to fix this and it’s frustrating when they have patients who just keep not showing, or they have an outburst in clinic, or they overdose and end up in the hospital.” [P5]

Introducing the concept of *harm reduction* and employing this approach to addiction care also can be challenging.

“[With] the harm reduction mindset, everyone falls on that spectrum differently, and so getting everyone on board, everyone’s willing to prescribe Suboxone, but one provider would say, ‘now you’re using meth. I’m not going to prescribe for you anymore.’ And so another provider would be like, ‘well, you are occasionally using fentanyl and you have had three overdoses in the past, so you are going to get Suboxone no matter what because we’re trying to save your life.’ . . . So I think over time and when we also started to do a

monthly Suboxone case conference . . . that has made the biggest impact on our faculty as far as changing the norms around harm reduction, and that passes down to the residents.” P6]

With the haphazard nature of resident clinic schedules, as well as the importance of continuity as a concept of trauma-informed care, some programs also describe *difficulties with creating resident provider continuity*.

## **5. Attitudes Associated With Creating an SUD Curriculum**

Participants also shared important attitudinal opinions about the value of this work.

Many addiction champions described how *primary care is best positioned* to be on the front lines of providing addiction care.

“[Addiction] should just be a core competency that we family docs do. And I think what would happen then is, people will get treatment, and there will be those [doctors] who have particular interest like anything else in family medicine will do more of it, and those who have less interest will do less of it. . . . But if our patient comes in and says, ‘Hey, Doc, can you help me?’ . . . We should be able to help them.” [P11]

These champions also recommended that, in starting an addiction medicine curriculum, the perceived complexity of addiction care may be a barrier. The solution is to *keep it simple and just do it*. Providers will likely learn from their patients along the way.

“It’s really not overly complicated. . . . Because most people have had plenty of experience with buprenorphine on [the] street, and it’s not that uncommon for people to come in and tell me pretty much what their dose is, and so it’s actually fairly easy.” [P11]

Additionally, faculty commented on the evolving nature of *resident applicants seeking programs that offer robust addiction training* as part of more generalized *health equity work*.

“This isn’t the only thing that we do that communicates our commitment to serving the needs of the community. So we screen for food and security and we do gender-affirming hormone therapy, and we have a refugee clinic. So I think the residents who want to come to our program are already of this mindset because it’s such a big part of what our faculty do related to social determinants of health and research. So, incoming residents want to be part of health care disparities work . . . they are motivated by that altruism.” [P3]

## **6. Program Outcomes**

Embedding addiction training into the core family medicine curriculum and culture generally leads to residents providing addiction care after graduation.

“We were finding that all of our graduates, whether they were interested in addiction medicine or not, whether or not they did the addiction track or not . . . that wherever they ended up working afterward . . . they are ending up in charge of the addiction med clinic. And they were like ‘this is like not even my thing but I know how to do it.’” [P2]

*Note:* Identified subthemes are italicized.

Abbreviations: R2, second-year resident; OUD, opioid use disorder; OBAT, office-based addiction treatment; bup, buprenorphine; SUD, substance use disorder; MOUD, medication for opioid use disorder; PA, physician assistant