2025, Volume 57, Issue 7, 489-492, e-ISSN 1938-3800

Family Medicine

ORIGINAL ARTICLE

Opioid Use Disorder Education in the Family Medicine Clerkships: A CERA Study

Kento Sonoda, MD, AAHIVS; Kelly M. Everard, PhD

AUTHOR AFFILIATION:

Department of Family and Community Medicine, Saint Louis University, Saint Louis, MO

CORRESPONDING AUTHOR:

Kento Sonoda, Department of Family and Community Medicine, Saint Louis University, Saint Louis, MO, kento.sonoda@health.slu.edu

HOW TO CITE: Sonoda K, Everard KM. Opioid Use Disorder Education in the Family Medicine Clerkships: A CERA Study. *Fam Med.* 2025;57(7):489-492. doi: 10.22454/FamMed.2025.301169

PUBLISHED: 4 June 2025

KEYWORDS: drug overdose, family practice, medical students, opioid use disorder, substance use disorder

ABSTRACT

Background and Objectives: Opioid use disorder (OUD) education is crucial early in medical education in response to the overwhelming number of drug overdose deaths and the stigma attached to addiction among health care professionals. Our study aimed to examine factors associated with teaching about OUD and to determine whether OUD education has increased over the past several years.

Methods: Data were collected through a cross-sectional survey of 173 US and Canadian family medicine clerkship directors in summer 2024. Survey items included clerkship directors' perceived importance, presence of current OUD education, and perceived barriers to OUD education.

Results: The response rate was 52.6% (91/173). Nine participants did not complete the addiction medicine questions and were excluded from analyses. Nearly three-fourths of clerkship directors thought teaching OUD was important, but 45% of clerkships did not include any OUD education. Approximately one-third of clerkship didactics covered screening, brief intervention, and referral to treatment (SBIRT; 40.2%); diagnosis of OUD (42.7%); pharmacological treatment of OUD (37.8%); and opioid overdose prevention education (31.7%). Lack of time in the curriculum was the most commonly perceived barrier to OUD education in clerkship.

Conclusions: Clerkships were more likely to include OUD education if clerkship directors perceived OUD education as important or had faculty with expertise to teach OUD. Our survey revealed an increase in the inclusion of OUD education in family medicine clerkships over the past several years. Designing the addiction medicine curricula specifically for medical student education may contribute to enhancing OUD education.

INTRODUCTION

In the United States, approximately 50 million people live with a substance use disorder (SUD), including 5.7 million people with opioid use disorder (OUD).[1] More than 93,000 people are estimated to have died from a drug overdose between July 2023 and June 2024.[2] In response to the overwhelming number of drug overdose deaths and individuals with SUDs, various initiatives have been implemented to improve access to medications and addiction medicine experts. The Consolidated Appropriations Act, 2023, removed the federal requirement for clinicians to have a waiver to prescribe buprenorphine for the treatment of OUD and empowered all clinicians to prescribe life-saving medications.[3] Since July 1, 2019, the Accreditation Council for Graduate Medical Education (ACGME) has required all programs to provide education in pain management and recognition of addiction; the requirement directed programs to develop specific competencies relevant to the most common conditions and settings curriculum in each specialty.[4] Examples of curricular experiences for family medicine residency include screening, brief intervention, and referral to treatment (SBIRT); integration of behavioral health therapies; and pharmacological treatment of OUD.[5] Furthermore, addiction medicine fellowship programs have been growing over the past decade and contributing to increasing addiction medicine specialists, who were officially recognized by the American Board of Medical Specialties in 2016.[6] In 2024, 105 addiction medicine fellowships were accredited by ACGME.[7]

Despite the need for family physicians to manage OUD, less than 40% of primary care physicians feel comfortable treating OUD with pharmacological treatment, even though most feel comfortable with screening and diagnosing the condition.[8] Only 28.6% of family medicine residency directors reported a required addiction medicine curriculum, with lack of faculty expertise being the most commonly cited barrier to having curricula.[9] Stigma attached to individuals with OUD among health care professionals is common and can contribute

to suboptimal care for these patients.[10–12] To address these barriers to providing treatment, offering OUD education early in medical education can help medical students not only improve clinical knowledge but also foster empathy and reduce their stigma toward OUD.[13] The family medicine clerkship may be the most suitable specialty to teach OUD because family physicians are well-suited to diagnose and manage OUD given their accessibility and long-term patient relationships.[14]

In 2014, a survey of clerkship directors showed that only 8% of family medicine clerkships offered SBIRT teaching for all students.[15] A 2017 survey of family medicine clerkship directors indicated that while 86.4% agreed that providing opioid overdose prevention education was important, only 25.8% included the education in their family medicine clerkship curriculum.[16] The impact of recent implementations in addiction care on family medicine clerkships, including the elimination of the X waiver requirement, expansion of fellowship training programs, and development of online resources such as the Society of Teachers of Family Medicine's (STFM's) National Clerkship Curriculum, remains unclear due to insufficient data.[3,7,17] Our study examined factors associated with teaching about OUD and sought to determine whether OUD education has increased over the past several years.

METHODS

Survey

Surveys were sent as part of the 2024 Council of Academic Family Medicine (CAFM) Educational Research Alliance (CERA) study of family medicine clerkship directors. Four academic family medicine organizations (STFM, North American Primary Care Research Group, Association of Departments of Family Medicine, and Association of Family Medicine Residency Directors) comprise CAFM.[18] The methodology of the CERA clerkship director survey has been described in detail.[19]

Surveys were emailed to 179 clerkship directors in June and July 2024 with invitations to participate, a personalized letter signed by CAFM organization presidents, and a link to the survey via SurveyMonkey (SurveyMonkey Inc). Five weekly reminders were sent to nonrespondents, and one final reminder was sent 2 days before closing the survey. Twelve survey recipients indicated they were no longer the clerkship director, and they provided a replacement who then was sent an invitation to participate in the survey. Five undeliverable email addresses and one residency director were removed from the pool, yielding a final pool size of 173 (158 in the United States and 15 in Canada). The project was approved by the American Academy of Family Physicians Institutional Review Board in April 2024.

Questions

Demographic questions included gender, race, underrepresented in medicine status, class size, and clerkship design. Participants answered questions about their perceived importance of teaching OUD in the clerkship, faculty expertise with OUD, curriculum changes because of the X waiver elimination, and whether their institution had an addiction medicine fellowship. In addition, they indicated whether the clerkship covered the topics of SBIRT, OUD diagnosis, pharmacological treatments for OUD, and opioid overdose prevention. Finally, participants indicated barriers to including OUD curriculum in their clerkship if none was offered.

Analyses

We used descriptive statistics to summarize the study variables. We used an independent samples t test to determine associations among clerkship directors' perceived importance of teaching OUD in the family medicine clerkship, faculty with OUD expertise, and state overdose rates in 2021 (from the Centers for Disease Control and Prevention), as well as teaching OUD topics in the clerkship.[20] We used Fisher exact test to determine an association between having an addiction medicine fellowship and teaching OUD topics in the clerkship.

RESULTS

Of 173 surveys, 91 were completed for an overall response rate of 52.6%. Nine participants did not complete the addiction medicine questions and were excluded from analyses. Most clerkship directors were female (59.8%) and White (77.8%). A smaller proportion (8.6%) were from groups underrepresented in medicine. Most clerkships (73.2%) were block only and were either 4 (35.4%) or 6 (24.4%) weeks long.

Nearly three-fourths (73.2%) of clerkship directors thought teaching OUD in their clerkship was important. However, only one-third of clerkship didactics covered SBIRT (40.2%), diagnosis of OUD (42.7%), pharmacological treatments of OUD (37.8%), and opioid overdose prevention education (31.7%). Approximately half (45.1%) of clerkships did not include any of the four OUD topics. More than half (58.5%) of clerkship directors reported having faculty with sufficient expertise to provide OUD education in clerkship. Barriers to including OUD education in clerkships were lack of time in the curriculum (46.6%), duplication of content from other rotations (22.4%), and lack of available faculty with sufficient expertise (15.5%).

The more strongly clerkship directors believed in the importance of teaching OUD in the clerkship, the more likely they were to include OUD diagnosis, pharmacological treatments for OUD, and overdose prevention topics in the clerkship curriculum (Table 1). Having more faculty with expertise to teach OUD was associated with teaching OUD diagnosis and pharmacological treatments for OUD (Table 2). Neither overdose rates (Table 3) nor having an addiction medicine fellowship (Table 4) were associated with teaching OUD in the clerkship.

DISCUSSION

Three-fourths of clerkship directors reported that teaching OUD in the family medicine clerkship was important; however, approximately half of clerkships did not include any OUD education. The most common barrier identified to including OUD education in their curriculum was lack of time, which is likely from the need to cover a wide range of common conditions

TABLE 1. AssociationsBetween Clerkship Director's Perceived Importance of Teaching OUD in Family Medicine Clerkship and the OUD Topics Taught

	Importance		
	Topic taught M (SD)*	Topic not taught M (SD)*	*P* value**
SBIRT	4.12 (.74)	3.88 (.90)	.203
OUD diagnosis	4.43 (.61)	3.64 (.85)	<.001
Pharmacological treatments for OUD	4.48 (.57)	3.67 (.84)	<.001
Opioid overdose prevention	4.42 (.70)	3.77 (.83)	<.001

*Higher scores indicate greater importance.
**Independent samples t test significant at $P<.05$
Abbreviations: OUD, opioid use disorder; SBIRT, screening, brief intervention, and referral to treatment; M, mean; SD, standard deviation

TABLE 2. Associations Between Having Faculty With Sufficient Expertise to Teach OUD in Family Medicine Clerkship and the OUD Topics Taught

	Faculty expertise		
	Topic taught M (SD)*	Topic not taught M (SD)*	*P* value**
SBIRT	3.67 (1.19)	3.55 (1.15)	.662
OUD diagnosis	4.00 (1.14)	3.30 (1.10)	.006
Pharmacological treatments for OUD	4.03 (1.14)	3.33 (1.12)	.008
Opioid overdose prevention	3.92 (1.23)	3.45 (1.11)	.084

*Higher scores indicate more faculty expertise.
**Independent samples t test significant at $P<.05$
Abbreviations: OUD, opioid use disorder; SBIRT, screening, brief intervention, and referral to treatment; M, mean; SD, standard deviation

TABLE 3. Associations Between State Overdose Rates and Teaching OUD Topics in Clerkship (N=76)

	State overdose rates (the number of deaths per 100,000 total population)		
	Topic taught M (SD)*	Topic not taught M (SD)*	*P* value**
SBIRT	37.1 (14.2)	34.3 (10.1)	.319
OUD diagnosis	37.2 (13.3)	34.1 (10.8)	.271
Pharmacological treatments for OUD	35.9 (13.1)	35.1 (11.2)	.780
Opioid overdose prevention	36.2 (14.2)	35.1 (10.7)	.712

*Overdose rates
**Independent samples t test significant at $P<.05$
Abbreviations: OUD, opioid use disorder; SBIRT, screening, brief intervention, and referral to treatment; M, mean; SD, standard deviation

TABLE 4. Associations Between Addiction Medicine Fellowship at Institution and OUD Topics Taught

	Offers addiction medicine fellowship		
	% Yes	% No	*P* value*
SBIRT	43.3	39.2	.447
OUD diagnosis	40.0	45.1	.416
Pharmacological treatments for OUD	30.0	43.1	.174
Opioid overdose prevention	33.3	31.4	.522

*Fisher's exact test
Abbreviations: OUD, opioid use disorder; SBIRT, screening, brief intervention, and referral to treatment

in the family medicine clerkship. However, the STFM National Clerkship Curriculum includes addiction medicine under the core chronic conditions section and recommends education about an accurate substance use history, typical presentations of SUDs, and communication skills with patients with SUDs.[21]

Our survey revealed an increase in the inclusion of SBIRT in family medicine clerkships, rising from 8% to 40.2%, as well as a growth in opioid overdose prevention education from 25.8% to 31.7% over the past several years.[15,16] However, unlike the other three OUD education topics, despite the substantial increase in SBIRT education in family medicine clerkships over the past decade, our study showed that SBIRT was not associated with clerkship directors' perceived importance of OUD education and having faculty with expertise to teach OUD. This may be partly due to the fact that SBIRT is not specific to opioids.[22]

This study had several limitations. First, response bias may have existed because nearly half of clerkship directors did not respond to our survey, limiting generalizability, although our responses were well-distributed across various demographic groups and similar to previous CERA clerkship director studies.[19] Next, our study survey assessed only the didactic curriculum about OUD education; actual learning experience in family medicine clerkships may include more OUD education through clinical practice. Furthermore, our survey did not describe what constitutes opioid overdose prevention education, pharmacological treatments for OUD, and SBIRT, which may have resulted in differing answers by clerkship directors.

CONCLUSIONS

Our study investigated OUD education and explored barriers to including this education in family medicine clerkships. Despite the ongoing opioid epidemic and recommendations from the STFM National Clerkship Curriculum, approximately half of the clerkships are still lacking OUD education, indicating a mismatch between the current clerkship curriculum and educational needs. The lack of available faculty with sufficient expertise was the third most common barrier to including OUD in clerkship, indicating the need for faculty development.

While free online educational resources for OUD are available, designing addiction medicine curricula specifically for medical student education may contribute to enhancing OUD education.[23–25] As opioid-related issues continue to profoundly impact communities, the family medicine clerkship is uniquely positioned to lead the effort to advance OUD education for medical students by bridging the gap between current curricular limitations and the pressing need for addiction medicine training.

REFERENCES

1. Key Substance Use and Mental Health Indicators in the United States: Results From the 2023 National Survey on Drug Use and Health. *Substance Abuse and Mental Health Services Administration.* 2024. https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report.
2. Ahmad FB, Cisewski JA, Rossen LM, Sutton P. *Provisional drug overdose death counts. National Center for Health Statistics.* National Center for Health Statistics; 2025. https://dx.doi.org/10.15620/cdc/20250305008.
3. *Substance Abuse and Mental Health Services Administration. Waiver elimination (MAT Act).* 2024. https://www.samhsa.gov/medications-substance-use-disorders/waiver-elimination-mat-act.
4. Opioid use disorder. *Accreditation Council for Graduate Medical Education.* 2025. https://www.acgme.org/education-and-resources/opioid-use-disorder/.
5. Sokolski E, Buchheit BM, Desai S, Englander H. It's time to train residents in addiction medicine. *J Grad Med Educ.* 2023;15(6):632-637.
6. American Board of Medical Specialties officially recognizes addiction medicine as a subspecialty. *American Board of Medical Specialties.* 2016. https://www.abms.org/wp-content/uploads/2020/11/abms-recognizes-addiction-medicine.pdf.
7. Find your place in addiction medicine. *American College of Academic Addiction Medicine.* 2025. https://acaam.memberclicks.net/finding-and-applying-to-fellowships.
8. Foti K, Heyward J, Tajanlangit M. Primary care physicians' preparedness to treat opioid use disorder in the United States: a cross-sectional survey. *Drug Alcohol Depend.* 2021;225:108811.
9. Tong S, Sabo R, Aycock R. Assessment of addiction medicine training in family medicine residency programs: a CERA study. *Fam Med.* 2017;49(7):537-543.
10. Boekel LCV, Brouwers EP, Weeghel JV, Garretsen HF. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: systematic review. *Drug Alcohol Depend.* 2013;131(1-2):23-35.
11. Volkow ND. Stigma and the toll of addiction. *N Engl J Med.* 2020;382(14):289-290.
12. Stone EM, Kennedy-Hendricks A, Barry CL, Bachhuber MA, Mcginty EE. The role of stigma in U.S. primary care physicians' treatment of opioid use disorder. *Drug Alcohol Depend.* 2021;221:108627.
13. Liu E, Moumen M, Goforth J. Characterizing the impact of clinical exposure to patients with opioid use disorder on medical students' perceptions of stigma and patient care. *Teach Learn Med.* 2023;35(2):128-142.
14. Buresh M, Stern R, Rastegar D. Treatment of opioid use disorder in primary care. *BMJ.* 2021;373:784-784.
15. Carlin-Menter SM, Malouin RA, Winklerprins V, Danzo A, Blondell RD. Training family medicine clerkship students in screening, brief intervention, and referral to treatment for substance use disorders: a CERA study. *Fam Med.* 2016;48(8):618-623.
16. Gano L, Renshaw SE, Hernandez RH, Cronholm PF. Opioid overdose prevention in family medicine clerkships: a CERA study. *Fam Med.* 2018;50(9):698-701.
17. Sokol R, Ahern J, Pleman B. An evaluation of STFM's national addiction curriculum. *Fam Med.* 2023;55(6):362-366.
18. Seehusen DA, Mainous AG, Iii, Chessman AW. Creating a centralized infrastructure to facilitate medical education research. *Ann Fam Med.* 2018;16(3):257-260.
19. Kost A, Ellenbogen R, Biggs R, Paladine HL. Methodology, Respondents, and Past Topics for 2024 CERA Clerkship Director Survey. *PRiMER.* 2025;9:7.
20. Drug overdose mortality by state. *Centers for Disease Control and Prevention.* 2021. https://www.cdc.gov/nchs/pressroom/sosmap/drug_poisoning_mortality/drug_poisoning.htm.
21. National Clerkship Curriculum. *Society of Teachers of Family Medicine.* 2018. https://www.stfm.org/teachingresources/curriculum/nationalclerkshipcurriculum/overview.
22. Screening, brief intervention, and referral to treatment (SBIRT). *Substance Abuse and Mental Health Services Administration.* 2024. https://www.samhsa.gov/substance-use/treatment/sbirt.
23. Keenan A, Sopdie E, Keilty J, Clark K. Impact over 3 years of a family medicine-led addiction medicine curriculum for medical students. *Fam Med.* 2023;55(7):476-480.
24. Lien IC, Seaton R, Szpytman A. Eight-hour medication-assisted treatment waiver training for opioid use disorder: integration into medical school curriculum. *Med Educ Online.* 2021;26(1):1847755.
25. Kolomitro K, Graves L, Kirby F. Developing a curriculum for addressing the opioid crisis: a national collaborative process. *J Med Educ Curric Dev.* 2022;9:23821205221082913.