Integrating Substance Use Disorder Into Family Medicine Residency Training: A Focus On Faculty Competencies

Abigail Elmes, PharmD, BCPS[1]; Jennie B. Jarrett, PharmD, BCPS, MMedEd, FCCP[1]; Shaina Shetty, MD[2]; Kanwal Haque, MPH[2]; Judes Fleurimont[2]; Christine Neeb, MD[2]

1. *University of Illinois Chicago College of Pharmacy, Department of Pharmacy Practice*
2. *University of Illinois Chicago, Department of Family and Community Medicine, Mile Square Health Centers*

Background

- Substance use disorder (SUD) training is not mandated in U.S. medical education and is emphasized disproportionately lower than other chronic conditions.
- Required addiction medicine experiences were only recently added to the Accreditation Council for Graduate Medical Education's required curricula for Internal Medicine, Family Medicine, Emergency Medicine specialties.
- According to chart review and self- and patient-report, practicing physicians inadequately address substance use in their patients.
- A survey by the National Center on Addiction and Substance Abuse found that fewer than 20% of primary care physicians considered themselves "very prepared to identify alcohol or drug dependence" compared to more than 80% feeling very comfortable diagnosing hypertension and diabetes.

Purpose

To explore the impact of an ongoing faculty development program integrating substance use disorder (SUD) into family medicine residency training on the knowledge, comfort, and attitudes of family medicine (FM) physicians in screening, diagnosis, and treatment of SUD and mental health conditions (MHC).

Methods

Design: Prospective, repeated cohort survey

Target Population: FM resident and attending physicians at the University of Illinois College of Medicine at Chicago FM Residency Program

Methods:
An anonymous online survey was distributed via email weekly for 5 weeks to (year 1=Jan 2021, year 2=Dec 2021)
The survey collected physician:

- Demographics
- Professional and personal experience with SUD
- Self-perceived knowledge, comfort, and attitudes towards managing patients with SUD
- Comfort with specific pharmacological and non-pharmacological SUD management strategies

Primary Outcome: self-perceived knowledge, comfort, and attitudes towards SUD and MHC screening, diagnosis, and treatment
Secondary Outcome: comfort with specific pharmacologic and non-pharmacologic SUD and MHC treatment

Data Analysis:

- Responses to Likert-type questions were grouped into positive and negative frames with neutral responses negatively grouped.
- Chi-squared or Fisher's exact tests to compare responses between attendings and residents and between years 1 and 2.

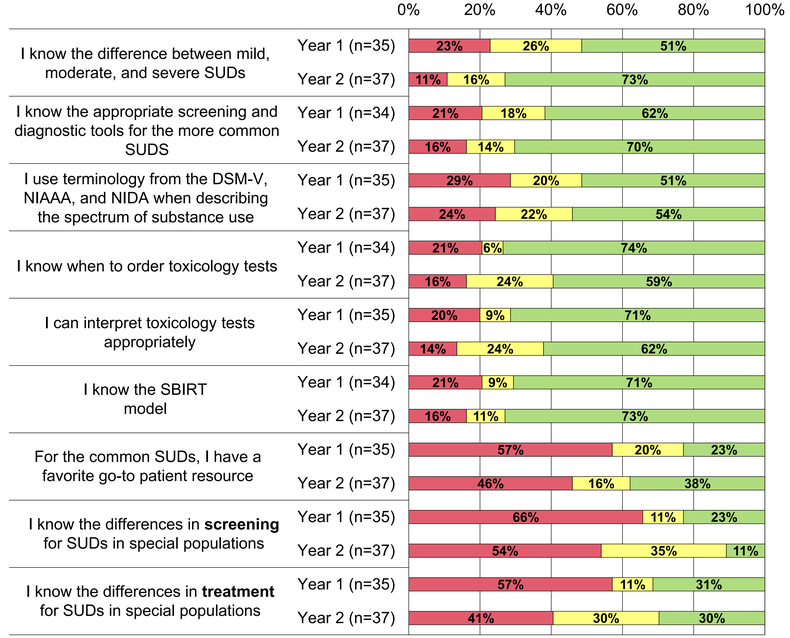
Results

Table 1. Family Medicine Attending and Resident Demographics

	Attendings, n (%)		Residents, n (%)	
	Year 1	Year 2	Year 1	Year 2
n (response rate)	20 (44)	18 (46)	18 (69)	22 (85)
Gender				
Male	8 (40)	8 (44)	5 (28)	5 (23)
Female	11 (55)	9 (50)	13 (72)	17 (77)
Non-binary	-	1 (6)	-	-
Prefer not to disclose	1 (5)	-	-	-
Personal connection with OUD				
Yes	4 (20)	3 (17)	6 (33)	7 (32)
No	16 (80)	15 (83)	12 (67)	15 (68)
Previous professional experience managing patients with OUD				
Yes	16 (80)	15 (83)	7 (39)	6 (27)
No	4 (20)	3 (17)	11 (61)	16 (73)
Drug Addiction Treatment Act of 2000 (DATA 2000) waiver-trained				
Yes	12 (60)	14 (78)	3 (17)	5 (23)
No	8 (40)	4 (22)	15 (83)	17 (77)

Results

Figure 1. FM Attending Self-Perceived SUD Knowledge over Year 1 (n=19) and Year 2 (n=15)

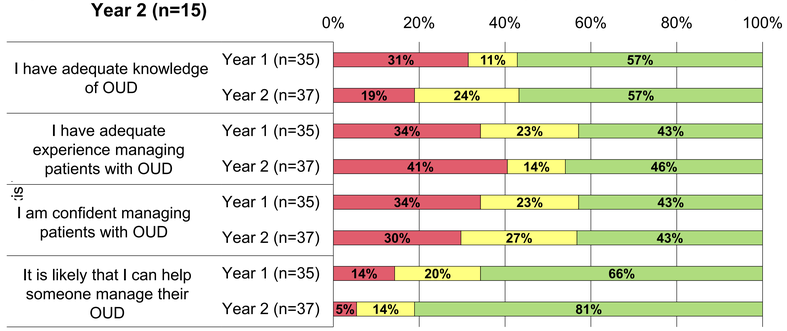


DSM-V: Diagnostic and Statistical Manual of Mental Disorders; NIAAA: National Institute on Alcohol Abuse and Alcoholism; NIDA: National Institute on Drug Abuse; SBIRT: Screening, Brief Intervention, Referral, and Treatment

Across years 1 and 2, <u>more than 90%</u> of FM physicians agreed that:

1) A primary care provider is the best person to initiate treatment of SUD
2) Patients with SUD are best treated with an interprofessional team

Figure 2. FM Attending Comfort with Opioid Use Disorder (OUD) over Year 1 (n=19) and Year 2 (n=15)



Results

Table 2. FM Physician Comfort with Mental Health Conditions (MHC) in Year 2

	Attendings, n (%)		Residents, n (%)		
	Disagree	Agree	Disagree	Agree	p
I have adequate knowledge of MHC	1 (7)	14 (93)	9 (43)	12 (57)	**0.024**
I have adequate experience managing patients with MHC	3 (20)	12 (80)	10 (48)	11 (52)	0.16
I am confident managing patients with MHC	2 (13)	13 (87)	10 (48)	11 (52)	**0.04**
It is likely that I can help someone manage their MHC	2 (13)	13 (87)	4 (19)	17 (81)	1

Table 3. FM Physician Comfort with Pharmacologic and Non-pharmacologic Approaches to SUD Treatment in Year 2

	Attendings, n (%)		Residents, n (%)		
	Uncomfortable	Comfortable	Uncomfortable	Comfortable	p
Medications for OUD					
Oral buprenorphine (bup)	5 (31)	11 (69)	14 (64)	8 (36)	**0.049**
Intramuscular bup	7 (47)	8 (53)	15 (68)	7 (32)	0.19
Sublingual bup/naloxone	4 (25)	12 (75)	5 (23)	17 (77)	1
Methadone	3 (19)	13 (81)	8 (36)	14 (64)	0.30
Naloxone	6 (38)	10 (63)	6 (30)	14 (70)	0.64
Intramuscular naltrexone	7 (44)	9 (56)	11 (50)	11 (50)	0.70
Clonidine	4 (25)	12 (75)	11 (50)	11 (50)	0.18
Baclofen	5 (31)	11 (69)	12 (55)	10 (46)	0.15
Dicyclomine	2 (13)	13 (87)	5 (23)	17 (77)	0.68
Medications for AUD					
Oral naltrexone	4 (25)	11 (69)	8 (36)	14 (64)	0.72
Intramuscular naltrexone	6 (38)	10 (63)	9 (41)	13 (59)	0.83
Acamprosate	8 (50)	8 (50)	18 (86)	3 (14)	**0.03**
Disulfiram	9 (56)	7 (44)	21 (96)	1 (4)	**0.005**
Benzodiazepine taper	4 (25)	12 (75)	14 (64)	8 (36)	**0.03**
Non-pharmacologic approaches to SUD					
Counseling	0 (0)	16 (100)	4 (18)	18 (82)	0.12
Narcotics Anonymous	3 (19)	13 (81)	11 (50)	11 (50)	**0.088**
Inpatient Psychiatry	4 (25)	12 (75)	12 (55)	10 (45)	0.1
Outpatient Psychiatry	0 (0)	16 (100)	8 (38)	13 (62)	**0.006**
Peer Recovery	4 (25)	12 (75)	13 (59)	9 (41)	0.052
Supervised Withdrawal	8 (50)	8 (50)	13 (59)	9 (41)	0.58

Discussion

- More FM physicians in year 2 than 1 felt comfortable utilizing methadone (71.1% vs 45.7%, p=0.028), likely a result of incorporation of an opioid treatment program at the clinic site between years 1 and 2.
- During year 2, more attendings than residents felt comfortable with buprenorphine, acamprosate, disulfiram, and benzodiazepine tapers for alcohol use disorder.
- Despite methadone's higher risk, FM attendings were more comfortable with methadone than buprenorphine.
- In Year 2, more attendings than residents reported adequate knowledge and confidence managing MHC.
- Although not statistically significant, differences in FM attendings' self-perceived knowledge in SUD management (Figure 1), improved from year 1 to year 2.
  - For example, although fewer attendings strongly agreed they knew the appropriate treatment of SUD in special populations in year 2, fewer attendings disagreed with this statement. This is indicative of ongoing faculty development initiatives for SUD training.

Conclusion

1. FM physicians reported adequate self-perceived knowledge, comfort, and attitudes for screening, diagnosing, and treating SUD and MHC.
2. More differences between attendings and residents were found in year 2 than 1, likely a result of ongoing faculty development initiatives.

References

1. Polydorou S, Gunderson EW, Levin FR. Training physicians to treat substance use disorders. *Curr Psychiatry Rep*. 2008;10(5):399-404. doi:10.1007/s11920-008-0064-8.

Acknowledgements

This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $2,500,000 with 0% financed with nongovernmental sources. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.