

BRIEF REPORT

Practice Patterns of Family Physicians With and Without Addiction Medicine Board Certification

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Background: The American Board of Medical Specialties recognized addiction medicine (ADM) as a subspecialty in 2016, which was timely given the recent rise in substance use disorder (SUD). The impact of this dual board opportunity on Family Medicine has not been described. Our study enumerates and characterizes physicians dually certified in Family Medicine and ADM.

Methods: We linked American Board of Medical Specialties data from March 2020 on physicians dually boarded in Family Medicine and ADM to responses on demographic and scope of practice questions in the American Board of Family Medicine (ABFM) National Graduate Survey and Family Medicine Certification Examination Registration Questionnaire.

Results: Of current ABFM Diplomates, 0.53% (492/93,269) are also boarded in ADM. Based on survey responses from a subset of dually certified physicians, those who are dually certified are more likely to practice in federally qualified health centers and to hold a faculty position. Dually certified physicians are more likely to provide HIV/AIDS and hepatitis C management and are as likely as non-dually certified physicians to provide newborn care, obstetric deliveries, inpatient adult medicine care, and intensive care.

Discussion: While only a small proportion of family physicians carry dual ADM board certification, those that do disproportionately serve vulnerable populations while retaining broad scope of care. Further work is needed to examine whether SUD treatment access could be addressed by implementing models that support dually certified physicians in consultative and educational efforts that would amplify their impact across the primary care workforce. (J Am Board Fam Med 2021;34:814–819.)

Keywords: Addiction Medicine, Attitude of Health Personnel, Certification, Family Medicine, Family Physicians, Outcome Measures, Primary Health Care, Referral and Consultation, Scope of Practice, Social Determinants of Health, Social Support, Socioeconomic Factors, Specialty Boards, Substance-Related Disorders, Surveys and Questionnaires, Workforce

Introduction

Drug overdose deaths in the United States have continued to increase, after a brief decline in 2018,

with a rise of 4.8% in 2019 over the past year to 70,980 deaths according to provisional data.¹ An estimated 20.4 million individuals aged 12 or older had a substance use disorder (SUD) in 2019, but only 12.2% of those who needed SUD treatment received it.² Early data suggest that SUD and drug overdose death rates have increased substantially while access to treatment has declined during the COVID-19 pandemic.^{3–5}

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While evidence suggests that primary care physicians can successfully treat SUD,^{6,7} a recent study at a single institution reported that only 20% felt prepared to care for patients with SUD.⁸ A prior national survey in 2000 reported that less than 20% of primary care physicians felt prepared to identify SUD, and more than 50% of patients with SUD felt that their primary care physician did not address their SUD.⁹ Furthermore, only 28.6% of family medicine residencies reported having a dedicated addiction medicine (ADM) curricula with a lack of faculty expertise listed as the top reason why many programs did not offer training in ADM.¹⁰ Studies have also shown that few family physicians feel prepared to prescribe or are currently prescribing buprenorphine, which is the predominant medication used in office-based settings for opioid use disorder.¹¹⁻¹⁴

With a goal of increasing the workforce to address SUD, ADM became an American Board of Medical Specialties (ABMS)-recognized subspecialty in 2016 under the American Board of Preventive Medicine.^{15,16} Any physician with an ABMS-recognized primary board certification is eligible to apply with appropriate fellowship training or, before 2025, sufficient addiction-focused practice experience.^{17,18} However, the current need for SUD treatment services far surpasses the supply of ADM specialists.² Physicians who are dually certified in a primary care specialty and ADM could play an important role in educating other primary care physicians about ADM and serving as a consultant for complicated patients.^{19,20}

Little is known about family physicians (FPs) who hold a secondary board certification in ADM. We sought to describe physicians' demographic, practice, and scope of care characteristics dually certified in ADM and family medicine.

Methods

We obtained a list of FPs who are certified in ADM as of March 2020 from the ABMS. Using their ABMS identification code, we linked these physicians to FPs in the American Board of Family Medicine (ABFM) database. We then linked physicians who were dually certified in family medicine and ADM to their responses in the 2016-2019 ABFM National Graduate Survey (NGS) and the 2017-2019 ABFM Family Medicine Certification Examination Registration Questionnaire (CERQ),

if available. The NGS is administered annually to all ABFM Diplomates who graduated from residency 3 years prior. The CERQ is completed by FPs seeking to continue their certification 3 to 4 months before the examination date as a required component of registration. Both surveys asked questions about practice characteristics and scope of care. Detailed information about the NGS and CERQ can be found elsewhere.^{21,22} Physician demographic data were obtained from ABFM administrative data.

After excluding physicians, not in direct patient care, we produced descriptive statistics and performed χ^2 tests and, where appropriate, Fisher exact tests for associations between ADM certification and personal and practice characteristics. SAS Version 9.4 (Cary, NC) was used for analyses. The American Academy of Family Physicians Institutional Review Board approved this study.

Results

Overall, 0.53% or 492 of 93,269 ABFM Diplomates are also certified in ADM. We were able to match NGS or CERQ responses for 186 of these physicians (37.8%). Of NGS respondents, from which there was a response rate ranging from 67-68%, 0.53% (47/8,863) are dually certified. Of CERQ respondents, from which there was a response rate of 100%, 0.56% (139/24,991) are dually certified.

FPs who are ADM board certified were more likely to practice in a federally qualified health center (for NGS: 28.9% ADM certified vs. 11.7% not ADM certified, $P=.003$; for CERQ: 8.6% vs. 5.9%, $P<.001$) and in principal practices with multiple specialties (for NGS: 40.0% vs. 23.3%, $P=.030$; for CERQ: 39.3% vs. 21.7%, $P<.001$). From the NGS, core/salaried faculty FPs were more likely to be certified in ADM (23.4% vs. 12.0%, $P=.004$), although this difference was not significant for CERQ respondents. No statistically significant differences were found in age, gender, degree type (MD vs. DO), training site, or race/ethnicity (Table 1).

In terms of scope of practice, FPs certified in ADM who responded to the NGS were more likely than those not certified to provide buprenorphine (93.6% vs. 10.1%, $P<.001$), pharmacologic management of HIV/AIDS (31.9% vs. 17.8%, $P=.012$) and pharmacologic management

Table 1. Personal and Practice Characteristics of Family Physicians With and Without Addiction Medicine Board Certification From 2017–2019 ABFM Continuing Certification Examination Registration Questionnaire and 2016–2019 National Graduate Survey

| Characteristics | National Graduate Survey 2016–2019 | | | Continuing Certification 2017–2019 | | |
|---|------------------------------------|-------------------------|-------------------|------------------------------------|-------------------------|-----------------|
| | ADM Certified n (%) | Not ADM Certified n (%) | <i>P</i> value* | ADM Certified n (%) | Not ADM Certified n (%) | <i>P</i> value* |
| Total | 47 | 8,816 | | 139 | 24,991 | |
| Age, y | | | | | | |
| Under 40 | 40 (85.1) | 7,712 (87.5) | .144 [†] | 11 (7.9) | 2,255 (9.0) | .295 |
| 40–49 | 4 (8.5) | 939 (10.7) | | 57 (41.0) | 9,338 (37.4) | |
| 50–59 | 3 (6.4) | 147 (1.7) | | 50 (36.0) | 8,084 (32.3) | |
| 60 and over | 0 (0.0) | 18 (0.2) | | 21 (15.1) | 5,313 (21.3) | |
| Sex | | | | | | |
| Male | 23 (48.9) | 3,880 (44.0) | .498 | 81 (58.3) | 14,288 (57.2) | .794 |
| Female | 24 (51.1) | 4,936 (56.0) | | 58 (41.7) | 10,702 (42.8) | |
| IMG | | | | | | |
| Yes | 8 (17.0) | 2,960 (33.6) | .016 | 26 (18.7) | 5,588 (22.4) | .299 |
| No | 39 (83.0) | 5,856 (66.4) | | 113 (81.3) | 19,378 (77.6) | |
| Race ^{††} | | | | | | |
| Asian | – | – | | 14 (10.1) | 3,744 (15.0) | .221 |
| Black or African American | – | – | | 5 (3.6) | 1,459 (5.8) | |
| White | – | – | | 110 (79.1) | 17,985 (72.0) | |
| Other | – | – | | 10 (7.2) | 1,803 (7.2) | |
| Ethnicity [‡] | | | | | | |
| Hispanic or Latino | – | – | | 11 (7.9) | 1,692 (6.8) | .593 |
| Not Hispanic or Latino | – | – | | 128 (92.1) | 23,299 (93.2) | |
| Faculty at medical school or residency [§] | | | | | | |
| Yes, core/salaried | 10 (24.4) | 812 (12.1) | .004 | 14 (10.1) | 2,312 (9.3) | .106 |
| Yes, volunteer/clinical | 13 (31.7) | 1,354 (20.1) | | 38 (27.3) | 5,106 (20.4) | |
| No | 18 (43.9) | 4,563 (67.8) | | 87 (62.6) | 17,572 (70.3) | |
| Principal practice size | | | | | | |
| Solo practice | 1 (2.2) | 263 (3.6) | .439 | 29 (22.7) | 2,544 (11.9) | <.001 |
| 2–5 providers | 18 (40.0) | 2,622 (35.6) | | 46 (35.9) | 7,146 (33.5) | |
| 6–20 providers | 20 (44.4) | 2,795 (38.0) | | 33 (25.8) | 6,541 (30.7) | |
| >20 providers | 6 (13.3) | 1,675 (22.8) | | 20 (15.6) | 5,097 (23.9) | |
| Principal practice site | | | | | | |
| Hospital/health system owned medical practice | 9 (20.0) | 2,856 (38.8) | .003 | 21 (16.4) | 7,219 (33.8) | <.001 |
| Independently owned | 7 (15.6) | 1,082 (14.7) | | 56 (43.8) | 6,813 (31.9) | |
| Managed care/HMO | 2 (4.4) | 532 (7.2) | | 7 (5.5) | 1,245 (5.8) | |
| Academic health center/faculty practice | 8 (17.8) | 813 (11.0) | | 6 (4.7) | 1,558 (7.3) | |
| FQHC or look-alike | 13 (28.9) | 858 (11.7) | | 11 (8.6) | 1,256 (5.9) | |
| Other | 6 (13.3) | 1,223 (16.6) | | 27 (21.1) | 3,238 (15.2) | |
| Specialty mix of principal practice | | | | | | |
| Family medicine only | 16 (35.6) | 3,213 (43.7) | .030 | 34 (38.2) | 10,193 (51.5) | <.001 |
| Primary care specialty mix | 11 (24.4) | 2,430 (33.0) | | 20 (22.5) | 5,310 (26.8) | |
| Multiple specialties | 18 (40.0) | 1,713 (23.3) | | 35 (39.3) | 4,292 (21.7) | |

Continued

Table 1. Continued

| Characteristics | National Graduate Survey 2016–2019 | | | Continuing Certification 2017–2019 | | |
|-----------------|------------------------------------|----------------------------|-----------------|------------------------------------|----------------------------|-----------------|
| | ADM Certified n (%) | Not ADM Certified n (%) | <i>P</i> value* | ADM Certified n (%) | Not ADM Certified n (%) | <i>P</i> value* |
| Rurality | | | | | | |
| Urban | 44 (95.7) | 7,178 (84.6) | .038 | 122 (87.8) | 20,924 (84.5) | .289 |
| Rural | 2 (4.3) | 1,310 (15.4) | | 17 (12.2) | 3,836 (15.5) | |

Abbreviations: ABFM, American Board of Family Medicine; ADM, addiction medicine; HMO, health maintenance organization; FQHC, federally qualified health center, IMG, International Medical Graduate.

*Unless otherwise noted, χ^2 test was to calculate the *P* value.

†Fisher exact test was used to calculate this *P* value.

‡Race and ethnicity data were not available for National Graduate Survey respondents.

2016 National Graduate Survey responses were excluded because the question about faculty differed from the 2017–2019 National Graduate Survey.

of hepatitis C (48.9% vs. 19.3%, $P < .001$). For CERQ respondents, this difference was observed for buprenorphine provision and pharmacologic management of hepatitis C. For both surveys, there were no differences in the provision of obstetric deliveries and other hospital-based care (including newborn, pediatric, adult and intensive care). FPs certified in ADM were less likely to provide pediatric outpatient care (Table 2).

Discussion

Despite the ongoing and worsening substance use disorder crisis in the United States,⁴ FPs who are dually certified in ADM are few in number. Dually certified physicians were more likely to practice in academic settings or federally qualified health centers. In addition, dually certified physician respondents to the NGS survey were more likely to hold a faculty position, although this finding was not statistically significant for

Table 2. Scope of Practice of Family Physicians With and Without Addiction Medicine Board Certification From 2017–2019 ABFM Continuing Certification Examination Registration Questionnaire and 2016–2019 National Graduate Survey

| Characteristics | National Graduate Survey 2016–2019 | | | Continuing Certification 2017–2019 | | |
|---|------------------------------------|----------------------------|-----------------|------------------------------------|----------------------------|--------------------|
| | ADM Certified n (%) | Not ADM Certified n (%) | <i>P</i> value* | ADM Certified n (%) | Not ADM Certified n (%) | <i>P</i> value* |
| Prenatal care | † | | | 18 (12.9) | 2,805 (11.2) | .521 |
| Delivering babies | 7 (14.9) | 1,194 (13.7) | .806 | 12 (8.6) | 1,637 (6.6) | .323 |
| Newborn hospital care | 10 (21.3) | 2,101 (24.0) | .665 | 14 (10.1) | 3,169 (12.7) | .356 |
| Pediatric hospital care (not newborn) | 8 (17.0) | 1,714 (19.6) | .661 | 8 (5.8) | 2,286 (9.1) | .166 |
| Pediatric outpatient care | 28 (59.6) | 6,704 (76.5) | .006 | 43 (30.9) | 13,812 (55.3) | <.001 |
| Adult inpatient medicine | 19 (40.4) | 3,445 (39.4) | .885 | 41 (29.5) | 6,079 (24.3) | .157 |
| Intensive care/ICU-CCU | 8 (17.0) | 1,953 (22.3) | .386 | 11 (7.9) | 2,316 (9.3) | .583 |
| Behavioral health care | 44 (93.6) | 7,693 (87.8) | .224 | 99 (71.2) | 8,962 (35.9) | <.001 |
| Integrative medicine | 8 (17.0) | 1,648 (18.8) | .754 | 14 (10.1) | 1,132 (4.5) | .002 |
| End of life care | 20 (42.6) | 5,354 (61.1) | .009 | 22 (15.8) | 7,071 (28.3) | .001 |
| Buprenorphine treatment | 44 (93.6) | 886 (10.1) | <.001 | 26 (83.9) | 285 (5.7) | <.001 [‡] |
| Pharmacologic management of HIV/AIDS | 15 (31.9) | 1,554 (17.8) | .012 | 1 (3.2) | 197 (3.9) | 1.000 [‡] |
| Pharmacologic management of hepatitis C | 23 (48.9) | 1,688 (19.3) | <.001 | 6 (19.4) | 183 (3.6) | <.009 [‡] |

ABFM, American Board of Family Medicine; ADM, addiction medicine; HIV/AIDS, human immunodeficiency virus/acquired immuno deficiency syndrome; ICU-CCU, intensive care unit-coronary care unit.

*Unless otherwise noted, χ^2 test was to calculate the *P* value.

†Data on prenatal care provision was not available for the National Graduate Survey.

‡Fisher exact test was used to calculate this *P* value.

CERQ respondents. These findings suggest that dually certified physicians may disproportionately work in underserved settings and in a teaching capacity.

Many dually certified physicians have maintained similar scope of practice as non-dually certified physicians, including hospital-based care and obstetric care, which suggests that dually certified physicians are not leaving primary care to practice addiction medicine solely.²³ Furthermore, we found that dually certified physicians are more likely to provide hepatitis C pharmacologic treatment and that early career dually certified physicians are more likely to provide HIV/AIDS treatment. This mechanism could provide increased access to evidence-based treatments for HIV/AIDS and hepatitis C, which are found at higher rates in individuals with SUD, both through direct patient care and mentoring/educational initiatives.

The small number of dual-certified physicians makes it clear that the burden of treating SUD cannot solely rest on these physicians. Rather, dually certified physicians could potentially increase access to SUD treatment services by educating and mentoring fellow primary care physicians about SUD management. Recent successful models of this care include Project Echo,¹⁹ the Provider Clinical Support System,²⁴ and the Hub-and-Spoke model in Vermont.²⁰ Future studies could examine how to use these models to best expand the workforce treating addiction by using the limited supply of dually certified physicians to provide more mentoring and technical assistance to community primary care physicians who might otherwise be hesitant to provide SUD care in their practices.

Several limitations exist. First, although our overall sample size is large, the total number of FPs who are ADM certified included in our sample is small and, thus, potentially limited generalizability. Second, examining ABMS board certification in ADM may underestimate FPs with expertise in ADM since they do not include those certified by mechanisms that existed before ABMS recognition of ADM as a specialty or those with expertise without any certification. Third, a response bias could potentially exist for the NGS. This limitation does not exist for the CERQ since it is mandatory.

Conclusion

While few in number, FPs with board certification in ADM are more likely to work in underserved areas, teach capacity, and provide HIV/AIDS and hepatitis C care while maintaining an otherwise

similar scope of practice to non-dually certified FPs. Further work is needed to examine whether dually certified physicians play an important role in educating and mentoring other primary care physicians about SUD care and how dually certified physicians help address treatment gaps in SUD.

To see this article online, please go to: <http://jabfm.org/content/34/4/814.full>.

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