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Changes in the Landscape of Clinical Backgrounds of Pain Medicine Fellows from 2019-2024

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Introduction

The dynamic field of pain medicine benefits from the diverse clinical backgrounds of physicians, such as anesthesiology, physical medicine and rehabilitation (PM&R), neurology, and other specialties. There has been a noticeable shift in the clinical backgrounds of residents pursuing pain medicine (1,2). Building on previous research, which examined the diversity of pain medicine fellows and faculty from 2009 to 2019 (3), this study aims to provide an analysis of pain medicine fellows and program directors from 2020 to 2024. These insights are crucial for educators, program directors, and policymakers to optimize training opportunities and align healthcare workforce strategies with the evolving needs of patient care.

Materials and Methods

We assessed public data from ACGME-accredited pain programs, focusing on the backgrounds of fellows from the graduating classes of 2020 to 2024. Additional information was gathered from social media platforms of programs and professional networking sites to identify further fellows. Collected information included gender, race, residency specialties, and fellowship graduation years. Additionally, the residency specialties of current program directors were documented. Linear regression analysis was applied to assess trends in the distribution of fellows across specialties. Per institutional policy, IRB approval was not required as the study exclusively used publicly available data and involved no patient-protected health information.

Results/Case Report

There has been a notable decline in the proportion of anesthesiology residents matching into pain medicine fellowships. In 2020, 73% of pain medicine fellows were former anesthesiology residents; by 2024, this decreased to 59% ($p<0.05$, figure 1a). In contrast, The representation of PM&R and emergency medicine (EM) residents have significantly increased in pain medicine fellowships ($p < 0.05$, figure 1b, 1c). Specifically, the proportion of PM&R residents increased from 23% to 32%, and EM residents rose from 0.7% to 4.2% (Table 1). No significant changes were observed in the representation of residents from other specialties, including neurology, family medicine, and psychiatry. No significant differences were found in the demographic analysis (Tables 2,3). As of 2024, 82% of pain medicine fellowship program directors are anesthesiologists, 14% are from PM&R, with the remainder from neurology and psychiatry.

Discussion

The decline in anesthesiology residents entering pain medicine fellowships and the increase in fellows from PM&R and EM backgrounds suggest a shifting landscape in the field. This trend may reflect evolving interests among residents and changes in the structure of training. The decreasing interest among anesthesiology residents could be influenced by economic factors such as increases in general anesthesiology salaries and job availability. The predominance of anesthesiologists among fellowship program directors highlights their influence in the field, though the rising presence of PM&R and EM fellows indicates a diversification of approaches in pain management. It remains unclear whether applicants interested in pain medicine select their residency specialty with fellowship preparation in mind or if certain fields prefer or avoid applicants based on their interest in pain medicine. Continued monitoring of these trends is essential for understanding their long-term impact on fellowship training and patient care.

References

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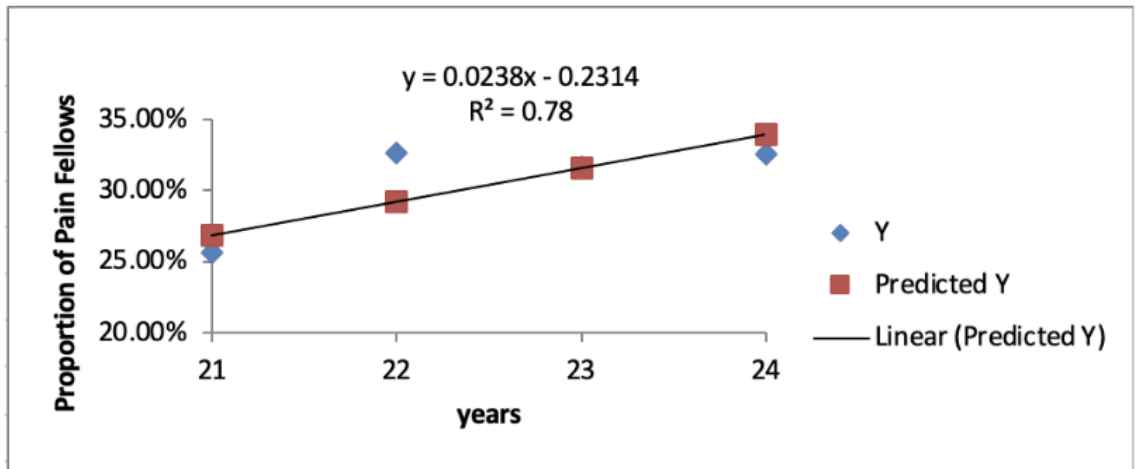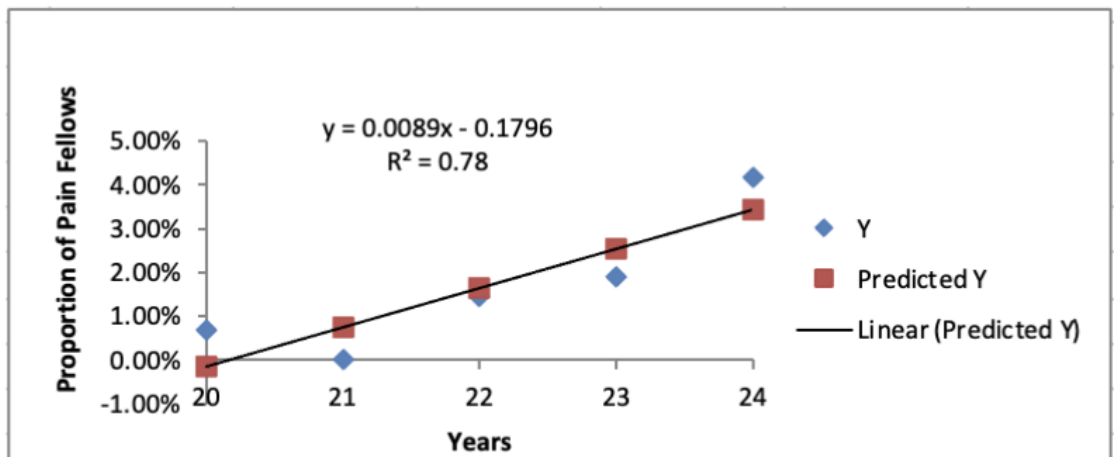
Disclosures

No

Tables / Images

A)
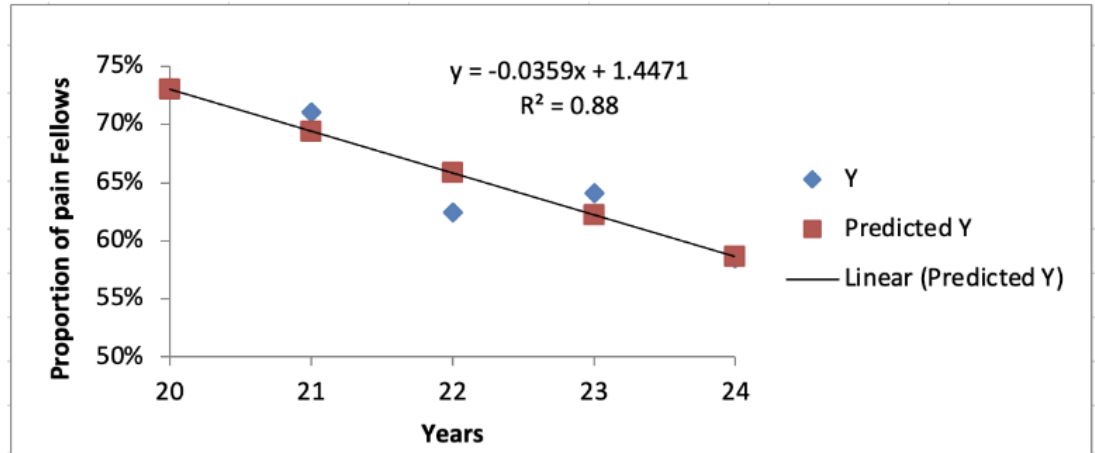
B)

C)

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Specialty	N(%)	N(%)	N(%)	N(%)	N(%)
Anesthesiology	109(73.7%)	137(71.7%)	128(62.4%)	168(64.1%)	194(57.9%)
PM&R	35(23.7%)	49(25.7%)	67(32.7%)	83(31.7%)	109(32.5%)
EM	1(0.7%)	0(0.0%)	3(1.5%)	5(1.9%)	14(4.2%)
Neurology	2(1.4%)	3(0.0%)	4(2.0%)	4(1.5%)	8(2.4%)
Other (FM, IM, psych, preventative)	1(1.4%)	2(0.0%)	3(1.5%)	2(0.8%)	8(2.4%)
Family Medicine	1(0.7%)	1(0.5%)	1(0.5%)	0(0.0%)	2(0.6%)
Psychiatry	0(0.0%)	1(0.5%)	1(0.5%)	1(0.4%)	1(0.3%)
Preventative Medicine	0(0.0%)	0(0.5%)	1(0.5%)	0(0.0%)	1(0.3%)
Internal Medicine	0(0.0%)	0(0.0%)	0(0.0%)	1(0.4%)	4(1.2%)

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Total Fellows	148	191	205	262	333
% of total fellows captured	42.9%	52.9%	60.8%	72.4%	93.0%
Region	N(%)	N(%)	N(%)	N(%)	N(%)
Northeast	63 (42.6%)	68(35.6%)	80(39.0%)	97(37.0%)	109 (32.5%)
Midwest	35(23.65%)	45(23.6%)	37(18.1%)	48(18.3%)	76(22.7%)
South	33(22.3%)	53(27.8%)	64(31.2%)	76 (29.0%)	110 (32.8%)
West	17(11.49%)	22(11.5%)	23(11.2%)	36(13.7%)	35(10.5%)
Other Countries/Military	0(0.0%)	3(1.6%)	1(0.5%)	5(1.9%)	3 (0.9%)

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Gender	N(%)	N(%)	N(%)	N(%)	N(%)
F	40(27%)	47(24.6%)	37(18.1%)	63(24.1%)	71(21.2%)
M	108(73.0%)	144(75.4%)	168(82.0%)	199(76.0%)	262(78.2%)
Race	N(%)	N(%)	N(%)	N(%)	N(%)
White	65(43.92%)	89(46.6%)	112(54.6%)	121(46.2%)	154(46.0%)
Black	11(7.43%)	7(3.7%)	9(4.4%)	13(5.0%)	23(6.9%)
Hispanic	1(0.7%)	6(3.1%)	8(3.9%)	21(8.0%)	12(3.6%)
Asian	55(37.2%)	80(41.9%)	58(28.3%)	90(34.4%)	110(32.8%)
Other	16(10.8%)	9(4.7%)	18(8.8%)	17(6.5%)	34(10.2%)