



# Predictors for Matriculation into Geriatric Psychiatry Fellowship: Data from a 2019–2020 National Survey of U.S. Program Directors

Michelle L. Conroy<sup>1</sup> · Rachel A. Meyen<sup>2</sup> · Martin D. Slade<sup>1</sup> · Brent P. Forester<sup>3</sup> · Paul D. Kirwin<sup>4</sup> · Kirsten M. Wilkins<sup>1</sup>

Received: 21 April 2020 / Accepted: 4 February 2021 / Published online: 15 March 2021

© This is a U.S. government work and not under copyright protection in the U.S.; foreign copyright protection may apply 2021

## Abstract

**Objective** With the number of geriatric psychiatry fellows declining from a peak of 106 during 2002–2003 to 48 during 2020–2021, this study aims to investigate characteristics of the geriatric psychiatry training requirement across U.S. psychiatry residency programs and to identify specific factors which may influence residents to pursue geriatric psychiatry subspecialty training.

**Methods** The authors queried the American Medical Association’s Fellowship and Residency Electronic Interactive Database Access system to compile a list of program directors from the Accreditation Council for Graduate Medical Education sponsored general adult psychiatry residency programs. Program directors were emailed an anonymous multiple-choice survey to ascertain specific characteristics of their program’s geriatric psychiatry training experiences. This study’s primary outcome was the percentage of residents entering geriatric psychiatry fellowship after completion of general psychiatry training. Linear regression analysis determined which variables may be associated with this primary outcome.

**Results** Of 248 surveyed, 60 programs (24%) responded to the survey. Only one of the independent variables revealed a statistically significant association with the percent of residents that became geriatric psychiatry fellows: the number of geriatric psychiatrists at the residents’ home institution ( $p=0.002$ ).

**Conclusions** Consistent with previous data, the presence of geriatric psychiatry faculty members is strongly associated with the decision to pursue subspecialty training in geriatric psychiatry.

**Keywords** Residency · Education · Training · Geriatric

United States (U.S.) healthcare systems face a pending surge of older adults, controversially depicted as the “silver tsunami” [1]. U.S. Census Bureau data predict the number of Americans over the age of 65 will nearly double from 40.3 million in 2010 to a projected 72.1 million in 2030 [2]. Charged with a congressional mandate, the Institute of Medicine (IOM) responded in 2012 by assessing the anticipated mental health and substance use treatment needs of this aging population. The IOM report estimates 10.1–14.4 million older Americans may need mental health or substance use services and cautions the projected workforce is inadequate to meet these demands [3].

Geriatric psychiatrists play an important role in contributing subspecialty expertise in treating older adults with mental health and substance use disorders, yet the number of psychiatry residents pursuing geriatric fellowship training is declining. After the establishment of the American Board of Psychiatry and Neurology (ABPN) geriatric psychiatry certification exam in 1991, the number of geriatric psychiatry fellows initially increased, before significantly dropping and then plateauing [4]. Data from the Accreditation Council for Graduate Medical Education (ACGME) demonstrates a peak of 106 geriatric psychiatry fellows during the 2002–2003 academic year (AY) declining to a concerning 48 during AY 2020–2021, a noteworthy 55% drop in fellowship enrollment [5, 6]. This trend occurred despite largely maintaining 62 geriatric psychiatry fellowship programs during the same time frame [5, 6]. The decline in fellows appears unique to the field of geriatric psychiatry, as recruitment into other psychiatric subspecialties did not decline. In comparison, over the same 2002–2020 time period, child and adolescent psychiatry fellows increased by 38%, and forensic psychiatry fellows by

✉ Michelle L. Conroy  
Michelle.L.Conroy@Yale.edu

<sup>1</sup> Yale School of Medicine, New Haven, CT, USA

<sup>2</sup> Edith Nourse Rogers Memorial VA Hospital, Bedford, MA, USA

<sup>3</sup> Harvard Medical School, Boston, MA, USA

<sup>4</sup> Tulane University School of Medicine, New Orleans, LA, USA

21% [5, 6]. Addiction medicine transformed from a specialty solely staffed by psychiatry to a new multi-disciplinary subspecialty opportunity in 2020. Between 2002 and 2019, addiction psychiatry fellows increased by 37%; in 2020, the combination of addiction psychiatry ( $n=53$ ) and multi-disciplinary addiction medicine fellows ( $n=81$ ) totaled 134, a 135% increase compared to addiction psychiatry fellow numbers in 2002. The ACGME first reported fellowship numbers for consultation-liaison psychiatry (previously “psychosomatic medicine”) fellows in 2004: the number of fellows was 10, compared to 86 in the 2020–2021 AY (760% increase) [5, 6]. In fact, the timing of the establishment of the consultation-liaison psychiatry fellowship is associated with a decline in fellows pursuing geriatric psychiatry fellowships, likely due to shared interests in caring for patients at the interface of medicine, psychiatry, and neurology [7]. It is also noteworthy the ACGME requirement for consultation-liaison psychiatry is 8 weeks, compared to 4 weeks in geriatric psychiatry [8], providing residents more exposure to consultation-liaison psychiatry attendings, and likely career and mentoring opportunities.

Identifying modifiable factors to increase resident interest in geriatric subspecialty training remains critical to recruitment efforts. This study aims to characterize the current state of geriatric training in adult psychiatry residency programs in the U.S. and to identify programmatic factors associated with higher rates of residents pursuing geriatric fellowship training. We hypothesized the following factors would be associated with higher rates of fellowship matriculation: the presence of geriatric psychiatry faculty (e.g., a greater number of geriatric psychiatry faculty, or a geriatric psychiatrist as a general program director or a geriatric psychiatrist on the program evaluation committee for the general residency), a greater number of geriatric psychiatry didactic hours, the presence of a geriatric psychiatry elective opportunity, the existence of a geriatric psychiatry fellowship program, and a residency program with a Department of Veteran Affairs (VA) affiliation.

## Methods

We queried the American Medical Association’s Fellowship and Residency Electronic Interactive Database Access (FREIDA) system in August 2018 to compile a contact list of program directors from U.S. ACGME-accredited adult psychiatry residency programs [9]. Residency program directors were emailed an anonymous multiple-choice survey using Qualtrics software. Informed consent was obtained before survey initiation. The survey’s domains of inquiry included the timing, quantity, and breadth of geriatric clinical experiences, the training settings, the quantity and involvement of geriatric psychiatry faculty in resident rotations, and the number of graduates who pursued geriatric psychiatry fellowship in the previous 5 years (see Table 1).

A reminder to complete the survey was emailed after 2 and 4 weeks; the survey was closed 6 weeks after initial invitation. The Institutional Review Board at Yale exempted the study.

To normalize the data from the responding programs, the percent of residents pursuing geriatric psychiatry fellowship training after graduation was calculated as the number who entered fellowship divided by the number of residents in the program. Program directors were asked to indicate whether 0, 1–2, 3–5, or greater than 5 residents matriculated into geriatric psychiatry fellowship in the last 5 years. For statistical

**Table 1** Characteristics of participating U.S. psychiatry residency programs\*

Survey item	N (%)
Respondent role or position	
Program director	45 (80.4%)
Associate program director	3 (5.4%)
Educator	4 (7.1%)
Other	4 (7.1%)
Timing of geriatric psychiatry rotation	
Post-graduate year 1	12 (14.6%)
Post-graduate year 2	35 (42.7%)
Post-graduate year 3	20 (24.4%)
Post-graduate year 4	12 (14.6%)
Other	3 (3.7%)
Residency with VA affiliation	
Yes	36 (65.5%)
No	19 (34.6%)
Number of geriatric psychiatrists on the faculty	
0	6 (10.9%)
1	10 (18.2%)
2	16 (29.1%)
3	7 (12.7%)
4	4 (7.3%)
5 or more	11 (20%)
Not sure	1 (1.8%)
Availability of advanced elective in geriatric psychiatry	
Yes	40 (72.7%)
No	13 (23.6%)
Not sure	2 (3.6%)
Fellowship in geriatric psychiatry at institution	
Yes	20 (36.3%)
No	35 (63.6%)
Number of graduating residents entering geriatric psychiatry fellowship in the previous 5 years	
0	24 (44%)
1 or 2	20 (37%)
3 to 5	6 (11%)
>5	3 (5%)

\*Note: not all respondents answered all questions.

analysis, the midpoint of each category (i.e., 1.5 if respondents selected the category 1–2) was assumed.

Linear regression analysis determined which independent variables were associated with the percent of residents that pursued geriatric psychiatry fellowship training. The linear regression modeling utilized a backward elimination strategy to produce a significance level to a stay of 0.05.

## Results

Of 248 programs surveyed, 60 programs (24%) responded to the survey (see Table 1 for program characteristics). Clinical experiences cited by program directors included the following: specialty geriatric psychiatry outpatient, specialty geriatric psychiatry inpatient, electroconvulsive therapy, consultation-liaison, long-term care facilities, and memory clinics. Respondents reported varying structures, lengths, and timing of their geriatric psychiatry rotations (Table 1). Of those with established full-time geriatric psychiatry rotations, the most common rotation length is 4 weeks, which fulfills the ACGME minimum requirement [8]. Not every responding program reported having an established geriatric psychiatry rotation. Some programs meet the ACGME mandate only partially by providing a consultation-liaison experience, accompanied by a variety of other experiences that incorporate the mental health treatment of older adults.

Only one independent variable had a statistically significant association with the percent of residents pursuing geriatric psychiatry fellowship training: the number of geriatric psychiatrists in the department ( $p=0.002$ ).

The survey offered the option of sharing additional comments at its conclusion. Qualitative comments were reviewed by the authors and most germane and representative comments include the following: “The geriatric rotation should be longer as the aging population is growing dramatically”... “I think we need to try and increase the FTE (full-time equivalent) required in general psych residency training since most people do not pursue fellowships in geriatric psychiatry. It behooves the general psychiatrist, especially in underserved areas, to be competent in this work”... “Very difficult to find training opportunities in this area for residents”... “We see very little interest in geriatrics from applicants. Specialty interests seem to be shifting toward addiction and consultation-liaison psychiatry.”

## Discussion

The number of geriatric psychiatrists per department is the only factor we identified with a statistically significant association to the percentage of residency graduates pursuing geriatric psychiatry fellowship training. This result is consistent with previously published literature suggesting geriatric psychiatrists act as ambassadors to promote geriatric psychiatry

education in residency training programs and serve as mentors to inspire residents to enter the field [10–13]. The greater the number of geriatric psychiatrists on faculty at an institution, the more opportunities exist for clinical interactions within traditional geriatric psychiatry settings, including outpatient specialty clinics, home-based care, and long-term care sites. Geriatric psychiatrists may staff other services that provide care to older adults such as consultation-liaison, inpatient psychiatry, and integrated primary care psychiatry. A greater presence of geriatric psychiatry faculty increases the likelihood of geriatric-specific educational experiences including didactics, journal clubs, and clinical case conferences. Geriatric psychiatry faculty may also influence curriculum development and rotation planning. To increase the pipeline of fellowship-trained geriatric psychiatrists, academic institutions should consider recruiting and retaining geriatric psychiatry faculty as part of their strategic mission.

The intent of the ACGME-required 1-month FTE rotation in geriatric psychiatry is to prepare general psychiatry residents to care for complex older adults. Survey respondents reported variability in the fulfillment of the ACGME-required experience. Some focused exclusively on geriatric psychiatry specialty services, while others comprised varied clinical experiences across healthcare systems. In their comments, survey respondents identified lack of personnel, resources, and institutional support (financial or otherwise), as well as competing demands for resident service as limitations to establishing a comprehensive geriatric psychiatry experience. As a result, some programs may not technically meet the ACGME mandate, may not incorporate supervision by a geriatric psychiatrist, and may lack educational cohesion. Therefore, residency programs should consider alternate approaches to the fulfillment of the ACGME requirement, including participation in longitudinal geriatric psychiatry outpatient clinics spanning the course of an academic year, a long-term care rotation (including providing care at assisted living facilities), collaboration with a psychiatrist in elderly protective services, and/or rotation opportunities in integrated primary care, a setting with many older adults are evaluated for mental health care needs [14].

National efforts to share resources with the hope of enhancing resident education in geriatric psychiatry, even when local geriatric psychiatry resources are not available, do exist. For example, the American Association for Geriatric Psychiatry (AAGP)’s online “COVID-19 curriculum” is a recently developed web-based curriculum designed to supplement trainee education in geriatric psychiatry [15]. Easily accessible curricula, plus more coordinated efforts between the AAGP, the American Association of Psychiatric Residency Training, and the American Psychiatric Association, are needed to enhance geriatric educational resources for residents and support residency programs who lack local resources for formal geriatric psychiatry education and mentorship. Additionally, geriatric

psychiatry national leadership should consider forging bonds alongside like-minded sub-specialties such as geriatric medicine, behavioral neurology, and palliative care to develop national resources across disciplines, as well as to encourage collaboration at institutions to improve the educational experience of all trainees.

Although not explicitly examined as a variable in our study, the timing of the geriatric psychiatry rotation is likely an important contributing factor in determining the pursuit of fellowship training. In a study of Canadian residents, participation in a geriatric psychiatry rotation before the third year of residency was independently related to interest in geriatric psychiatry as a career choice; notably, 36.7% of respondents interested in geriatric psychiatry as a future career completed a geriatric psychiatry rotation in medical school [10]. Early exposure to geriatric psychiatry and thus geriatric psychiatry faculty connects interested junior residents with national opportunities such as the AAGP's Scholars Program and the annual AAGP meeting, repeated attendance at which is positively associated with the decision to pursue fellowship training [10, 16, 17]. The Scholars Program, which aims to inspire interest in geriatric psychiatry training and careers, provides formal mentorship and active engagement in programming events as well as a scholarly activity requirement [16]. Early exposure to geriatric psychiatry faculty mentorship may also inspire a junior resident to undertake supervised research electives, fourth-year clinical elective opportunities, or chief resident roles in geriatric psychiatry. None of these are likely if exposure to geriatric psychiatry is delayed until the latter half of residency training, when most trainees are already committed to subspecialty training (e.g., "fast-tracking" to a child and adolescent psychiatry fellowship) or alternate post-residency career opportunities [10].

This study has limitations. The survey was issued during residency recruitment season which, in addition to the inundation of program directors by survey requests throughout the academic year, may help explain the low response rate of 24%. Despite sending the survey to all ACGME-affiliated programs in the U.S., the anonymity of the survey prevents the authors from determining whether the responses are nationally representative, thereby challenging the generalizability of the results. We did not inquire about the presence of geriatric medicine, behavioral neurology, or other rotations that may include exposure to older adults with mental health concerns. Our study did not establish whether recruitment efforts are enhanced by the presence of a geriatric psychiatry fellowship at an institution; perhaps higher response rates may strengthen an association between the presence of a geriatric psychiatry fellowship and recruitment. Additionally, the small number of residents pursuing geriatric psychiatry fellowship training results in relatively low power to detect significant predictors. While we did inquire about the types of clinical experiences residents are offered in geriatric psychiatry, future

studies should more closely examine the impact of these various experiences on residents' impressions of and interest in the field.

Psychiatry residency programs play a vital role in geriatric psychiatry education and are integral to addressing a looming public health crisis where the complex health demands of an aging population far exceed the numbers of experts trained in the care of neuropsychiatric illnesses in older adults. Data from this survey of U.S. general adult psychiatry residency program directors suggest an association between the number of geriatric psychiatrists in the department with the number of residents pursuing geriatric fellowship training. Residency programs must recruit and retain geriatric psychiatry faculty to formalize and enrich geriatric psychiatry curriculum as well as mentor trainees to inspire further interest in the field. To augment these efforts, national psychiatry subspecialty and training organizations should collaborate to ensure adequate geriatric psychiatry training and mentorship even when local resources are lacking. These efforts will better equip all psychiatrists of the future to provide safe, high-quality care to older adult populations.

**Acknowledgements** The authors wish to thank Jason Schillerstrom, MD, University of Texas Health Science Center at San Antonio, TX, for his assistance in developing the survey. The authors also express gratitude to Katherine Hobbs, BA, a medical student at Warren Alpert Medical School of Brown University for her assistance in obtaining contact information for program directors. And finally, the authors also wish to acknowledge Jason G. Smith, MLIS, Medical Librarian, Department of Veteran Affairs, for his assistance developing search terms for the literature review. This data was presented at a poster presentation at AAGP Annual Meeting March 2019, Atlanta, GA. Meyen, Rachel, et al. "The State of Geriatric Psychiatry Training in General Psychiatry Residency: Data from a National Survey of US Program Directors." *The American Journal of Geriatric Psychiatry* 27.3 (2019): S163.

## Declarations

**Disclosures** Dr. Forester reports grants from Eli Lilly, grants and other from Biogen, grants from NIA, grants from the Rogers Family Foundation, grants from the Spier Family Foundation, outside the submitted work. Drs. Conroy, Forester, Kirwin, Meyen, Wilkins, and Martin Slade, MPH, do not report any conflicts of interest.

## References

1. Bartels SJ, Naslund JA. The underside of the silver tsunami—older adults and mental health care. *N Engl J Med*. 2013;368:493–6.
2. Vincent GK, Velkoff VA: The next four decades: the older population in the United States: 2010 to 2050, US Department of Commerce, Economics and Statistics Administration, US Census Bureau, Washington (DC). 2010. Available at: <https://www.census.gov/prod/2010pubs/p25-1138.pdf>. Accessed September 19, 2019.
3. Committee on the Mental Health Workforce for Geriatric Populations, Board on Health Care Services, Institute of Medicine: The mental health and substance use workforce for older

- adults: in whose hands? Edited by Eden J, Maslow K, Le M, et al. Washington (DC), National Academies Press (US). 2012.
4. Juul D, Colenda CC, Lyness JM, Dunn LB, Hargrave R, Faulkner LR. Subspecialty training and certification in geriatric psychiatry: a 25-year overview. *Am J Geriatr Psychiatry*. 2017;25:445–53.
  5. Accreditation Council for Graduate Medical Education. Number of accredited programs and on-duty residents for the academic year by specialty, 2002–2003. 2020. Available at: <https://apps.acgme-i.org/ads/Public/Reports/Report/3>. Last updated 2020. Accessed October 29, 2020.
  6. Accreditation Council for Graduate Medical Education. Number of accredited programs and on-duty residents for the academic year by specialty, 2020–2021. 2020. Available at: <https://apps.acgme-i.org/ads/Public/Reports/Report/3>. Last updated 2020. Accessed October 29, 2020.
  7. Bragg EJ, Warshaw GA, Cheong J, Meganathan K, Brewer DE. National survey of geriatric psychiatry fellowship programs: comparing findings in 2006/07 and 2001/02 from the American Geriatrics Society and Association of Directors of Geriatric Academic Programs' Geriatrics Workforce Policy Studies Center. *Am J Geriatr Psychiatry*. 2012;20:169–78.
  8. Accreditation Council for Graduate Medical Education. ACGME Program Requirements for Graduate Medical Education in Psychiatry, ACGME-approved focused revision: 2020. Available at <https://www.acgme.org/Specialties/Program-Requirements-and-FAQs-and-Applications/pfcetid/21/Psychiatry>. Accessed October 29, 2020.
  9. American Medical Association: FREIDA, the AMA Residency & Fellowship Database [FREIDA website]. 2019. Available at: <https://freida.ama-assn.org/Freida/#/>. Accessed September 19, 2019.
  10. Rej S, Laliberte V, Rapoport MJ, Seitz D, Andrew M, Davidson M. What makes residents interested in geriatric psychiatry? A Pan-Canadian online survey of psychiatry residents. *Am J Geriatr Psychiatry*. 2015;23(7):735–43.
  11. Hermann N, Shulman KI, Silver IL. Intensive early exposure to geriatric psychiatry in residency training: impact on career choice and practice. *Can J Psychiatr*. 1992;37:549–52.
  12. Lief SJ, Clarke D. What factors contribute to senior psychiatry residents' interest in geriatric psychiatry? A Delphi study. *Can J Psychiatr*. 2000;45:912–6.
  13. Lief SJ, Tolomiczenko GS, Dunn LB. Effect of training and other influences on the development of career interest in geriatric psychiatry. *Am J Geriatr Psychiatry*. 2003;11:300–8.
  14. Gupta M, Ali HK, Savo D, Conroy M, Wilkins KM. Integrated primary and mental health care for older adults: successes, challenges, and recommendations. *Curr Geriatr Rep*. 2019;8(3):137–47.
  15. American Association for Geriatric Psychiatry: AAGP COVID-19 Online Trainee Curriculum. 2020. Available at: [www.aagponline.org/COVIDCurriculum](http://www.aagponline.org/COVIDCurriculum). Accessed October, 29, 2020.
  16. Wilkins KM, Forester B, Conroy M, Kirwin PDS. The American Association for Geriatric Psychiatry's Scholars Program: a model program for recruitment into psychiatric subspecialties. *Acad Psychiatry*. 2017;41:688–92.
  17. Conroy ML, Yarns BC, Wilkins KM, et al. The AAGP Scholars Program: predictors of pursuing geriatric psychiatry fellowship training. *Am J Geriatr Psychiatry*. 2020;S1064-7481(20):30430–9.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.