

Mentoring and Geriatric Mental Health Research Careers

Mentoring, a traditional part of a student's progress in the academic environment, is beneficial in particular to the furthering of a research career. In the area of geriatric mental health research, there are unique challenges that make mentoring a valuable tool in the development of the skilled and effective researcher.

What Is a Mentor?

The term "mentor" comes from the Greek story of Odysseus, the hero of *The Odyssey*. The tutor of Odysseus's son Telemachus, Mentor acted as protective friend, advisor, and teacher when Odysseus was away during the Trojan War. The modern-day definition of mentor can be defined in much the same terms. In fact, the title of a book on mentoring published by the National Academy of Sciences describes the role of the mentor as: "advisor, teacher, role model, friend."¹ Mentors encourage and nurture their proteges or "mentees" and work to guide them toward independent and successful careers.

The Mentoring Relationship

The traditional view of the mentoring relationship is that of a mentor working closely with one mentee through the course of the mentee's academic career. However, increased clinical, research, and administrative demands in the academic research environment have led to adaptations in the mentoring framework. Mentors may have more than one mentee and sometimes may not even be at the same institution as their mentee, causing the relationship to be almost entirely conducted by e-mail — a practice known as distance mentoring or "e-mentoring." Mentees may also have more than one mentor, or even an entire mentoring team. There may be a formal mentoring program at the institution or department, or informal mentoring relationships may occur. Regardless of the mechanics of mentoring, the essential components of the mentoring relationship remain the same. As described by Rodenhauser et al², they are "a commitment to mutually agreed-upon objectives, a willingness to learn under the mentor's supervision, devotion of the

necessary time and energy to the agreed-upon goals, and an expectation that the protégé become increasingly independent."

Reynolds et al³ have described the roles played by mentors in the NIMH-funded Junior Faculty Scholars training program at the University of Pittsburgh, which is designed to ease the transition from research postdoctoral fellowships to extramural grant support. At its heart is the fundamental role of the mentor as advisor, helping the mentee to decide on his or her individual goals and providing advice on how to achieve those goals. Other roles include:

- Acting as a role model in all aspects of the academic researcher's life, including the balance between work and home responsibilities
- Teaching specific research skills and techniques
- Training in grant-writing and publication skills
- Introducing the mentee to the network of investigators outside the home institution
- Training in research ethics

With this wide array of responsibilities, it is unsurprising that many mentees look to more than one mentor to fulfill these obligations.

Importance of Mentoring in Academic Advancement

In the academic environment, mentoring is a critical component of successful career development and satisfaction.⁴ More specifically, mentoring has been correlated with improvement in research participation, an increase in mentees' self-confidence in the research environment, increased time spent in research, and

greater research-related productivity as shown by number of publications and grants. Studies in biomedical and behavioral research and mental health and psychiatry, specifically, have demonstrated that individuals who become successful independent investigators are more likely to have had an extended mentoring experience.³ In a survey of over 3000 doctoral level faculty in psychiatry at US medical schools, time spent with a mentor was ranked as the most important factor of research training programs in psychiatry.⁵

Conversely, not having a mentor is seen as a hindrance in the completion of both research projects and publication.⁶ In Jackson et al's⁷ survey of faculty members about their experience with mentorship, respondents who did not have mentors reported that they felt lost, lacking the guidance of someone to teach them "the rules of the game" of academic advancement. They believed they had lower salaries and less success as a result of not having a mentor to advise them.

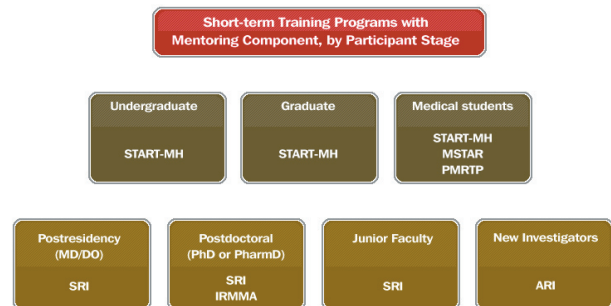
Mentoring in Geriatric Mental Health Research

One of the most critical issues in geriatric mental health research is the ongoing decline in numbers of researchers in the field. According to Reynolds and Gatz⁸ the number of scientific opportunities (the rapid growth of the US population over age 65, the increased rates of mental illnesses and suicide in later life, etc.) is far greater than the number of researchers available to do the work. There are several barriers to establishing a sufficient number of investigators in the area of geriatric mental health, including pressures on individuals (eg, student loan indebtedness, salary differences between academic and private sector careers), lack of substantial emphasis on government policy for appropriate funding, and a pronounced lag time in R01 grant funding after having won an award.⁹ Other factors include lack of introduction to the field early in the investigator's career and departmental responsibilities that compete for the senior colleague's time (clinical work and teaching).¹⁰

Because of the role mentors play in supporting and furthering their mentees' career paths, mentoring has been cited as an important factor in growing and maintaining the geriatric mental health researcher pipeline.¹⁰⁻¹² Mentoring can help provide grant preparation skills, time management skills, and the type of collaboration and consultation needed to know how and when to make what kind of transitions.^{9,13}

In fact, mentoring can be instrumental in developing and encouraging the initial choice of geriatric mental health research as a field of study.^{14,15} Lief et al¹⁴ reported that almost 75% of a study group of residents cited mentoring as stimulating an interest in the field of geriatric psychiatry, while in the study conducted by Halpain and colleagues¹⁵, medical students who participated in the START-MH program, which has a strong mentoring emphasis, indicated that the program heightened their interest in a career in geriatric mental health research.

Because of its importance in choosing and remaining in geriatric mental health research careers, several short-term and longer-term research training programs have made mentoring an integral part of the curriculum. The following are a few examples:



- The Summer Training on Aging Research Topics - Mental Health Fellowship (START-MH) pairs investigators interested in mentoring with students exploring careers in geriatric mental health.¹⁵
 - Organized by Weill Cornell Medical College, the NIMH-sponsored program Advanced Research Institute in Geriatric Mental Health (ARI) matches new investigators who are ready to submit grant applications for independent research funding (eg, NIH R01 funding) with senior investigators as mentors.¹²
 - The Summer Research Institute (SRI) is an annual week-long research training program followed by ongoing mentorship for about 25 selected fellows and junior faculty.¹²
 - The Medical Student Training In Aging Research (MSTAR) program, sponsored by the Stein Institute for Research on Aging, provides short-term research training in aging and geriatrics to medical students to expose them, early in their training, to aging research. The students get mentorship from successful researchers in aging with the goal of encouraging them to consider careers in aging

research.¹²

The American Association for Geriatric Psychiatry lists various suggestions for senior investigators/academics/clinicians in the field to implement mentoring-related activities, including the development of a clinician-shadowing program in which medical students have the opportunity to observe the clinician's experiences with geriatric patients; delivering neuroscience-based lectures to first- and second-year medical students to address possible stereotypes of working with elderly patients; and creating a geriatric psychiatry elective for fourth-year medical students.¹⁶

In the late '90s, the National Institutes of Health recognized the importance of mentoring to a research career with the K series mentored career development awards (K01 and K23). These grants are intended to assist postdocs and early career scientists in becoming independent investigators with the guidance of a mentor or mentors. Because the transition to R01 funding is considered proof of attaining independent investigator status, K awards take on a special importance in maintaining the "pipeline" of geriatric mental health researchers.^{3,9} Bruce⁹ found that among recipients of K01, K07, K08, K23, and R29 grants in geriatric psychiatry, a relatively small number (14%) received R01 funding within 1 year of completing the earlier grant. Similarly, an NIH working group found that only half of K08 award recipients who applied for a subsequent R01 or R29 were successful, but the likelihood of success was less for those without a prior mentored award.¹⁷

Barriers to Mentoring

Although mentoring is important for all researchers, it may be especially vital for women and minorities, who face special issues in building a research career. In fiscal year 2002, only 5.5% of principal investigators who received NIH training grants were African-American, Hispanic, or Native American (minority groups historically underrepresented in medicine and the sciences, or URMs); the numbers for URMs who received research program grants (RPGs) and NIH fellowships were 3.2% and 10.7%, respectively.²² Faculty members from underrepresented minority groups are also promoted to associate or full professor levels at lower rates compared with white faculty²³ and are less satisfied with their careers.²⁴ They may be more likely to have economic and emotional pressures that discourage them from pursuing research careers.^{25,26}

While women are close to parity with men in

predoctoral and postdoctoral research training and K awards, they comprise 24% of PIs on R01s and other traditional research grants.²⁷ According to the most recent Association of American Medical Colleges figures, more than 70% of women faculty members are concentrated at the lowest academic ranks.²⁸ Women may be less likely to put themselves forward for higher positions than men and are likely to have less extensive networks that are limited to colleagues at their current institution.²⁹ Women of color may also feel particularly isolated; they may be the first or only woman or member of a URM in their program and may experience intense pressure to succeed as a result.³⁰

One problem may simply be a lack of mentors. Since both women and URMs may be less likely to have mentors, this decreases the odds that they will go on to become mentors themselves.^{18,31,32} In Williams'¹⁹ survey, female and minority residents and faculty were more likely to agree that shared gender and ethnicity were essential to the mentoring relationship, whereas male faculty members and residents believed that race and gender made little difference. On the other hand, Palepu³³ found in a survey of 1800 faculty members that most of the women faculty (80%) and the minority faculty (86%) who had had mentors reported that it was not important to have a mentor of the same gender or minority group. Mentoring across cultural/ethnic lines has challenges, but may be a rewarding experience for both mentor and mentee. Perhaps more importantly, it may be unavoidable; as Crutcher³⁴ states, "Because few mentors, especially in the higher ranks of academe, come from nonmajority backgrounds, we especially need to focus on strategies to make cross-cultural mentoring work." Several academic institutions/departments have come up with their own solutions to the problem of mentor shortage. Peer mentoring, in which the mentor and mentee are similar in rank, is one of these.^{32,35} Several published reports have found that peer mentoring groups lead to positive climate change within departments and an increased sense of community and involvement among participants.^{32,35} One institution has combined peer, onsite, and distance mentoring to create an entirely new multilevel mentoring model for URM faculty members. Known as the POD (for Peer, Onsite, Distance), this model provides mentees with guidance and support from peers, targeted assistance with professional questions from onsite senior faculty, and information from an outside network of distance mentors.¹⁸

Mentoring is also a major component of several research training programs in psychiatry focused on

increasing URM participation and retention in psychiatry. These include the Program for Minority Research Training in Psychiatry (PMRTP), a joint program of the NIMH and the APA, and the Institute for Research Minority Training on Mental Health and Aging (IRMMA), funded by the NIA and sponsored by the AAGP and the Medical University of South Carolina in Charleston.^{36,37}

Conclusion

The importance of mentoring to the geriatric mental health research career cannot be overstated. Mentoring is vital not only in order to keep the pipeline of investigators going, but to prepare the next generation of mentors in this field. To do so, it must continue to be a priority on both the individual and institutional level. The online mentoring education and reference source MedEdMentoring.org is an essential part of this goal. Developed with the support of the National Institute of Mental Health (under contract/grant HHSN278200444084C), the site offers valuable career development tools for both mentees and mentors, as well as up-to-date resources on relevant publications, funding announcements, and career development. The Career Autobiography section, in which investigators describe their individual career paths, is testimony to the positive impact mentors have on their mentees. Accessible to all, MedEdMentoring is an important response to the impending need for more geriatric mental health researchers.

References:

1. National Academies Press. *Adviser, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering*. Washington, DC: 1997.
2. Rodenhauer P, Rudisill JR, Dvorak R: Skills for mentors and protégés applicable to psychiatry. *Acad Psychiatry* 2000; 24:14–27.
3. Reynolds et al. Training future generations of mental health researchers: devising strategies for tough times. *Acad Psychiatry* 2007;31:152-159.
4. Levinson W, Kaufman K, Clark B, Tolle SW. Mentors and role models for women in academic medicine. *West J Med*. 1991; 154:423–426.
5. Pincus HA, Haviland MG, Dial TH, Hendryx MS. The relationship of postdoctoral research training to current research activities of faculty in academic departments of psychiatry. *Am J Psychiatry*. 1995; 152:596-601.
6. Sambunjak D, et al. Mentoring in academic medicine: a system-

atic review. *JAMA*. 2006;296:1103-1115.

7. Jackson VA, Palepu A, Szalacha L, Caswell C, Carr PL, Inui T. “Having the right chemistry”: a qualitative study of mentoring in academic medicine. *Acad Med*. 2003;78:328-334.
8. Reynolds CF, Gatz M. Research training in mental health and aging: the harvest is plentiful; the laborers few. *Am J Geriatr Psychiatry*. 2003;11:267-270.
9. Bruce ML. Challenges to the transition to independent investigator in geriatric mental health. *Am J Geriatr Psychiatry*. 2003;11:356-359.
10. Olin JT, Reynolds CF, Light E, Cuthbert BN. Career development and training in geriatric mental health. *Am J Geriatr Psychiatry*. 2003;11:275-279.
11. Kupfer DJ, Hyman SE, Schatzberg AF, Pincus HA, Reynolds CF III. Recruiting and retaining future generations of physician scientists in mental health. *Arch Gen Psychiatry*. 2002;59:657-660.
12. Jeste DV, Halpain MC, Trinidad GI, Reichstadt JL, Lebowitz BD. UCSD’s short-term research training programs for trainees at different levels of career development. *Acad Psychiatry*. 2007;31:160-167.
13. Bruce ML. The focus on geriatric mental health. http://www.mededmentoring.org/presentations/mod1b/html_print/index.asp?progid=2. Accessed on: March 3, 2008.
14. 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;11:300-308.
15. Halpain MC, Jeste DV, Trinidad GI, Wetherell JL, Lebowitz B. Intensive short-term research training for undergraduate, graduate, and medical students: early experience with a new national-level approach in geriatric mental health. *Acad Psychiatry*. 2005;29:58-65.
16. American Association of Geriatric Psychiatry. *Mentoring the Next Generation of Geriatric Psychiatrists*, 2006. http://www.aagppa.org/prof/mntr_broch_web.pdf. Accessed March 3, 2008.
17. *Bridges to Independence: Fostering the Independence of New Investigators in Biomedical Research*. Washington, DC: The National Academies Press; 2005.
18. Lewellen-Williams C, Johnson VA, Deloney LA, Thomas BR, Goyol A, Henry-Tillman R. The POD: a new model for mentoring underrepresented minority faculty. *Acad Med*. 2006;81:275-279.
19. Williams LL, Levine JB, Malhotra S, Holtzheimer P. The good-enough mentoring relationship. *Acad Psychiatry*. 2004;28:111-115.
20. Barker LJ, Cohoon JM. Georgia Tech mentoring program for

- faculty advancement. National Center for Women & Technology, 2007. http://www.ncwit.org/pdf/GeorgiaTechMentoringProgramFacultyAdvancement_MentoringFacultyWomen_Practice.pdf Accessed March 4, 2008.
21. Rose GL, Rukstalis MR, Schuckit MA. Informal mentoring between faculty and medical students. *Acad Med* 2005;80:344-348.
22. Shavers VL, Fagan P, Lawrence D, et al. Barriers to racial/ethnic minority application and competition for NIH research funding. *J Natl Med Assoc*. 2005;97:1063-1077.
23. Fang D, Moy E, Colburn L, Hurley J. Racial and ethnic disparities in faculty promotion in academic medicine. *JAMA*. 2000;284:1085-1092.
24. Palepu A, Carr PL, Friedman RH, Ash AS, Moskowitz MA. Specialty choices, compensation, and career satisfaction of under-represented minority faculty in academic medicine. *Acad Med*. 2000;75:157-160.
25. Waitzkin H, Yager J, Parker T, Duran B. Mentoring partnerships for minority faculty and graduate students in mental health services research. *Acad Psychiatry*. 2006;30:205-217.
26. Yager J, Waitzkin H, Parker T, Duran B. Educating, training, and mentoring minority faculty and other trainees in mental health services research. *Acad Psychiatry*. 2007;31:146-151.
27. NIH Working Group on Women in Biomedical Careers. Interim Summary of Working Group Considerations. June 8, 2007. <http://womeninscience.nih.gov/workinggroup/index.asp>. Accessed March 3, 2008.
28. Association of American Medical Colleges. Women in U.S. Academic Medicine Statistics and Medical School Benchmarking, 2004-2005. <http://www.aamc.org/members/wim/statistics/stats05/start.htm>. Accessed March 3, 2008.
29. Bickel J, Wara D, Atkinson BF, et al. Increasing women's leadership in academic medicine: Report of the AAMC Project Implementation Committee. *Acad Med*. 2002; 77:1043-1061.
30. Mentoring Minority Women in Biomedical Research. Presented at: National Leadership Workshop on Mentoring Women in Biomedical Careers, November 27–28, 2007, Bethesda, Maryland. <http://womeninscience.nih.gov/mentoring/documents/WorkshopVI.pdf> Accessed March 3, 2008.
31. Bright CM, Duefield CA, Stone VE. Perceived barriers and biases in the medical education experience by gender and race. *J Natl Med Assoc*. 1998;90:681-688.
32. Seritan AL, Bhangoo R, Garma S, Dubé J, Park JH, Hales R. Society for women in academic psychiatry: a peer mentoring approach. *Acad Psychiatry*. 2007;31:363-366.
33. Palepu A, Friedman RH, Barnett RC, Carr PL, Ash AS, Szalacha L, Moskowitz MA. Junior faculty members' mentoring relationships and their professional development in U.S. medical schools. *Acad Med*. 1998;73:318-23.
34. Crutcher BN. Mentoring across cultures. *Academe Online*. July-August 2007; 93. <http://www.aaup.org/AAUP/pubsres/academe/2007/JA/Feat/crut.htm> Accessed March 4, 2008.
35. Bussey-Jones J, Bernstein L, Higgins S, Malebranche D, Paranjape A, Genao I, Lee B, Branch W. Repaving the road to academic success: the IMERGE approach to peer mentoring. *Acad Med*. 2006;81:674-679.
36. Psychiatry Research Fellowships, American Psychiatric Institute for Research and Education (APIRE). <http://www.omhrc.gov/templates/content.aspx?ID=1504>. Accessed March 3, 2008.
37. IRMMA. <http://exceed.musc.edu/%5CNewsRoom%5CIRMMA.doc>. Accessed March 3, 2008

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