

Interventional psychiatry: What are the next steps?

The explosion of interest in interventional psychiatry is highlighted by 2 recent reviews published in CURRENT PSYCHIATRY.^{1,2} While this is clearly desirable, the rate of growth has created problems. Expansion of interventional modalities has outpaced the training and education of our residents and practicing psychiatrists.

Psychiatry's failure to address these changes would be a dire error, as psychiatrists could lose control of our field's advances and growth. But this creates an even larger question: what are the next steps we need to take? We believe interventional psychiatry must be recognized as its own psychiatric subspecialty, receive greater emphasis in psychiatry residency training, and be subject to standardization by professional organizations.

Dr. Vincent is Professor and Vice Chair for Education, Department of Psychiatry and Behavioral Sciences, University of Louisville School of Medicine, Louisville, Kentucky. Dr. Good is a PGY-4 Psychiatry Resident, University of Louisville School of Medicine, Louisville, Kentucky. Dr. El-Mallakh is Professor, Department of Psychiatry and Behavioral Sciences, and Director, Mood Disorders Research Program, University of Louisville School of Medicine, Louisville, Kentucky.

Disclosures

Dr. El-Mallakh has served as a speaker for Axsome, Intracellular Therapies, Janssen, Lundbeck, Myriad, Noven, Otsuka, and Teva, and has received a research grant from Sunovion. Dr. El-Mallakh is CURRENT PSYCHIATRY'S Section Editor, Clinical Neuroscience. Dr. Vincent and Dr. Good report no financial relationships with any companies whose products are mentioned in this article, or with manufacturers of competing products.

doi: 10.12788/cp.0378

Psychiatry has incorporated procedures into patient care for almost 100 years, starting with electroconvulsive therapy (ECT) and insulin shock therapy in the 1930s.^{3,4} However, in the last 10 years, the rapid expansion of FDA approvals of neuromodulation procedures to treat psychiatric conditions (including vagus nerve stimulation in 2005, transcranial magnetic stimulation [TMS] in 2008, and the device exception granted for the use of deep brain stimulation in 2009) has produced the moniker "interventional psychiatry" for this unofficial psychiatric subspecialty.^{5,6}

If we are to establish interventional psychiatry as a recognized subspecialty, it is important to create a universally accepted definition. We propose the term refer to therapeutic techniques or processes that may or may not be invasive but require special training to perform. Additionally, interventional psychiatry should include even minimally invasive procedures, such as ketamine infusions, medication implants, long-acting injectable (LAI) medications, and processes that require a Risk Evaluation and Mitigation Strategy (REMS), such as those utilized with clozapine, esketamine, or olanzapine for extended-release injectable suspension⁷ (see "Risk Evaluation and Mitigation Strategy programs: How they can be improved," *page 14*). The proportions of clinicians who prescribe clozapine (7%)⁸ or LAIs (32.1% to 77.7%, depending on the patient population being



Kathy Vincent, MD



Megan Good, MD



Rif S. El-Mallakh, MD

To comment on this editorial or other topics of interest:

henry.nasrallah

@currentpsychiatry.com

Editorial StaffEDITOR **Jeff Bauer**SENIOR MEDICAL COPY EDITOR
Eric SegerWEB EDITOR **Kathryn Wighton****Art & Production Staff**CREATIVE DIRECTOR **Louise Koenig**ART DIRECTOR **Pat Fopma**DIRECTOR, PRODUCTION /
MANUFACTURING**Rebecca Slebodnik**PRODUCTION MANAGER **Donna Pituras****Publishing Staff**PUBLISHER **Sharon Finch**DIRECTOR EBUSINESS DEVELOPMENT
Alison Paton**Editor-in-Chief Emeritus****James Randolph Hillard, MD****Frontline Medical Communications**VP, SALES **Mike Guire**VP, SALES LEAD **Dino Marsella**VP, MEMBER MARKETING **Amy Pfeiffer**VP, PARTNERSHIPS, PRODUCTS & STRATEGY
Amy NadelCIRCULATION DIRECTOR **Jared Sonners****FRONTLINE** | **MDedge**
MEDICAL COMMUNICATIONS

283-299 Market St.

2 Gateway Building, 4th Floor

Newark, NJ 07102

Tel: (973) 206-3434

Fax: (973) 206-9378

www.frontlinemedcom.com

Subscription Inquiries:
subscriptions@mdedge.comPublished through an
educational partnership with **CINCINNATI**

treated)^{9,10} is evidence that the interventional nature of these treatments creates obstacles to their use.

This vacuum of adequate training among psychiatrists has caused interventional psychiatry to grow beyond the confines of the psychiatric field. In most metropolitan areas of the United States, there are clinicians who focus on a specific interventional treatment, such as ketamine infusions or TMS administration. The creation of these specialized clinics has frequently been pioneered by nonpsychiatrists, such as anesthesiologists. This may be attributed to these clinicians' level of comfort with procedures, or because they possess an infrastructure within their practice that facilitates delivery of the services. In certain states with independent-practice laws, midlevel clinicians are granted permission to open these clinics. However, having nonpsychiatrists provide these treatments to patients with complex psychiatric disorders without psychiatrist involvement makes it less likely that the appropriateness of treatment will be determined, or that the treatment will be incorporated into the patient's overall biopsychosocial treatment plan.

A gap in training

There is evidence the growth of interventional psychiatry has exceeded the capacity of the current training infrastructure to provide trainees with adequate exposure to these procedures. The Accreditation Council for Graduate Medical Education requires that psychiatry residents be trained in the indications for and use of ECT and neuromodulation therapies but does not provide any specifics about how this training should occur,¹¹ and the Psychiatry Milestones do not indicate how competency in these therapies can be achieved.¹² Most trainees have exposure to some interventional treatments,

such as ECT or clozapine administration, during residency. However, in 1 survey, only 63% of residents had prescribed clozapine, and 83% indicated they wanted additional experience.¹³ In a survey of 91 training programs, 75% stated that ECT was required of residents, but 37% estimated that a typical resident would participate in <10 treatments.¹⁴ Even more surprising, 27% estimated that the typical resident would care for <5 patients receiving ECT.¹⁴

Addressing the changing role of interventional practices in our field must occur on multiple levels, starting with a core curriculum during residency training, expanded learning opportunities for residents with a specific interest in interventional psychiatry, and, most important, a formal interventional psychiatry fellowship leading to certification from the American Board of Medical Specialties.^{5,6} There are growing numbers of 1-year fellowship programs that offer extensive experiences in neuromodulation and novel pharmacologic treatment and may produce the next generation of leaders in this field. However, training in interventional psychiatry techniques for practicing psychiatrists wishing to expand their treatment offerings is generally quite limited.

Oversight of interventional psychiatry training should be performed by peers. Therefore, creation of an interventional psychiatry society, or a work group within a larger organization, is necessary. While much of this already exists, it is fragmented into associations focused on unique aspects of interventional psychiatry, such as just ECT (eg, International Society for ECT and Neurostimulation), just TMS (eg, Clinical TMS Society), or just ketamine (eg, the American Society of Ketamine Physicians). Despite disparate foci, the goal would be for all to unite into a parent interventional organization that can

face these challenges. These organizations have already united a core of individual interventional psychiatrists who can lead psychiatry into the future. They can provide input into guidelines, minimal standards, procedures, protocols, and outcome measures. They also can address any ethical issues that may arise with the use of more invasive treatments.

Change, especially the monumental changes in practice that accompany interventional psychiatry, is both exciting and intimidating. However, certain “growing pains” along the way require urgent consideration. Ultimately, as a field, we either adapt to change or get left behind.

References

1. Arbusch D, Farooqui A, El-Mallakh RS. Interventional psychiatry (Part 1). *Current Psychiatry*. 2023;22(5):25-35. doi:10.12788/cp.0356
2. Arbusch D, Farooqui A, El-Mallakh RS. Interventional psychiatry (Part 2). *Current Psychiatry*. 2023;22(7):27-35. doi:10.12788/cp.0364
3. Jones K. Insulin coma therapy in schizophrenia. *J R Soc Med*. 2000;93(3):147-149. doi:10.1177/014107680009300313
4. Gazdag G, Ungvari GS. Electroconvulsive therapy: 80 years old and still going strong. *World J Psychiatry*. 2019;9(1):1-6. doi:10.5498/wjp.v9.i1.1
5. Williams NR, Taylor JJ, Snipes JM, et al. Interventional psychiatry: how should psychiatric educators incorporate neuromodulation into training? *Acad Psychiatry*. 2014;38(2):168-176. doi:10.1007/s40596-014-0050-x
6. Trapp NT, Williams NR. The future of training and practice in neuromodulation: an interventional psychiatry perspective. *Front Psychiatry*. 2021; 12:734487. doi:10.3389/fpsy.2021.734487
7. Vincent KM, Ryan M, Palmer E, et al. Interventional psychiatry. *Postgrad Med*. 2020;132(7):573-574. doi:10.1080/00325481.2020.1727671
8. Tang Y, Horvitz-Lennon M, Gellad WF, et al. Prescribing of clozapine and antipsychotic polypharmacy for schizophrenia in a large Medicaid program. *Psychiatr Serv*. 2017;68(6):579-586. doi:10.1176/appi.ps.201600041
9. Zhdanova M, Starr HL, Lefebvre P, et al. Understanding the health system conditions affecting the use of long-acting injectable antipsychotics in the treatment of schizophrenia in clinical practice: a US healthcare provider survey. *Neuropsychiatr Dis Treat*. 2022;18:1479-1493. doi:10.2147/NDT.S369494
10. Bunting SR, Chalmers K, Yohanna D, et al. Prescription of long-acting injectable antipsychotic medications among outpatient mental health care service providers. *Psychiatr Serv*. 2023;appips20220586. doi:10.1176/appi.ps.20220586
11. Accreditation Council for Graduate Medical Education. Common program requirements. July 2022. Accessed June 6, 2023. <https://www.acgme.org/programs-and-institutions/programs/common-program-requirements>
12. Kinzie JM, DeJong SM, Edgar L, et al. Psychiatry Milestones 2.0: using the supplemental guide to create a shared model of the development of professional identity and expertise. *Acad Psychiatry*. 2021;45(4):500-505. doi:10.1007/s40596-021-01455-6
13. Singh B, Hughes AJ, Roerig JL. Comfort level and barriers to the appropriate use of clozapine: a preliminary survey of US psychiatric residents. *Acad Psychiatry*. 2020;44(1):53-58. doi:10.1007/s40596-019-01134-7
14. Dinwiddie SH, Spitz D. Resident education in electroconvulsive therapy. *J ECT*. 2010;26(4):310-316. doi:10.1097/YCT.0b013e3181cb5f78

Creation of an interventional psychiatry society, or a work group within a larger organization, is necessary