The Integrative Psychiatry Curriculum: Development of an Innovative Model

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Abstract

The Integrative Psychiatry Curriculum (IPC) was developed to train psychiatry residents and fellows to apply an Integrative Medicine (IM) approach for patients presenting with psychiatric disorders. Launched in 2015, IPC includes interactive online courses, in-person experiential sessions, and a clinical component with supervision. Twenty-one residents and fellows have completed the curriculum. The purpose of the IPC is 2-fold: to enhance patient wellness through training residents and fellows in evidence-based whole-person care and to improve physician well-being through enhanced stress management and self-awareness utilizing the practice of mind–body skills within a supportive small group setting. Course participants are trained in a broad range of prevention and treatment options and learn about their evidence base; they then practice incorporating IM into diagnosis and treatment plans through supervised clinical experience. This article describes the development of IPC and its elements. Efforts are underway to further develop and standardize the offerings and increase the portability of the course, making it easier for Psychiatry training programs with limited faculty expertise in IM to provide the curriculum for residents and fellows. To reach the goal of disseminating such a curriculum for integrative psychiatry, further funding and collaboration with multiple residency training programs is needed.

Keywords
integrative medicine, psychiatry training, model curriculum, whole-person care, physician wellness

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Introduction

As defined by the Academic Consortium for Integrative Medicine and Health, Integrative Medicine (IM) “reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic and lifestyle approaches, healthcare professionals and disciplines to achieve optimal health and healing.” The emphasis on empirical evidence of effectiveness distinguishes IM from the original concept of Complementary and Alternative Medicine (CAM). In addition, an increasing number of approaches, such as mindfulness meditation or the use of Omega-3 fatty acid supplementation, previously considered “alternative,” are now developing a growing evidence base for their use within the context of mental health conditions. In many such cases, despite a growing body of evidence for efficacy and safety, it can take years for new scientific knowledge to be implemented into widespread clinical practice.

The healthcare system continues to face many challenges: rising costs, inability to effectively mitigate the burden of chronic disease, distrust of medical professionals, and a crisis in physician wellness that leaves up to 42% of doctors suffering from burnout and contributes to high physician suicide rates. These factors paint a picture of a system in need of change. In addition, patients choose CAM methods in large numbers, including for common mental health conditions such as depression and anxiety. Meanwhile, physician interest and research on the effectiveness of IM approaches are growing. All these factors contribute to the need for providers to be educated in IM.

IM is especially relevant to psychiatric training because psychiatrists “are qualified to assess both the...
mental and physical aspects of psychological problems,” according to the American Psychiatric Association.\textsuperscript{17} IM emphasizes the interconnectedness of mind–body processes as applied to resiliency and health promotion, disease manifestation, treatment, and recovery processes, on which there is a growing body of research.\textsuperscript{18–20}

Despite the advantages of practicing an IM approach, most psychiatry training programs do not incorporate IM into the core curriculum or elective opportunities. Physician competency and confidence in their IM knowledge is low. IM content in psychiatry training is sporadic, and there has been no standardized IM curriculum for inclusion into psychiatry residency training programs.\textsuperscript{21} Given the vast subjects that IM encompasses and the growing body of IM research, a systematic approach is needed. This article describes an initiative to develop a rigorous, standardized IM curriculum specific to psychiatry, based on established IM programs for residency training in other fields and in line with guidelines and recommendations such as those established by the American Council on Graduate Medical Education (ACGME) and the Integrative Medicine in Preventive Medicine Education Center.\textsuperscript{22–24} The innovative Integrative Psychiatry Curriculum (IPC) teaches psychiatric residents and fellows the evidence-based practice of IM, enabling them to care more holistically for patients and for themselves. The IPC provides an opportunity to enhance the mental health system through improving the education of psychiatrists-in-training in a format that can be replicated across institutions.

**Process**

The IPC directors began the process of developing an IM curriculum for psychiatry trainees in November 2014. Both directors completed certification with The Center for Mind-Body Medicine (CMBM) as well as a 1000-hour fellowship in IM with the Andrew Weil Center for Integrative Medicine (AWCIM; formerly the University of Arizona Center for Integrative Medicine or UACIM) to deepen their own knowledge and skills and to enhance networking with other experts in IM. Upon approval by University of Arizona Department of Psychiatry leadership and residency training directors, IPC began as a pilot in July 2015. Through an iterative curriculum design involving feedback from participants and continual improvement, the program has been updated and expanded over several years.

The IPC was developed in partnership with AWCIM, which provided the interactive online course work, faculty mentorship, as well as research and IT support. The project was also bolstered by strong support from the Department of Psychiatry administration and leadership. Additional funding was received from The Weil Foundation beginning in July 2016. A University of Arizona Strategic Priorities Faculty Initiative grant award provided faculty time for curriculum development, and existing AWCIM interactive online curricula for residents provided a model for the directors throughout this process. Integrative Medicine in Residency (IMR) was initially developed by AWCIM in 2008 for Family Medicine and has since been adapted for Internal Medicine, Pediatrics, Preventive Medicine, and Obstetrics. The IMR was originally implemented following a national needs assessment\textsuperscript{25} and addresses core competencies delineated by the ACGME. It was then adopted and evaluated by 8 family medicine residency training programs.\textsuperscript{26} The successes and challenges of the IMR were instructive, and the IPC directors learned from faculty leaders of those programs throughout the development of the IPC as well as from a further needs assessment specific to psychiatry training.\textsuperscript{21}

**Curriculum Content**

Currently, the IPC consists of 3 synergistic components: online, experiential, and clinical. Participants who successfully complete the first year, IPC I, can elect to continue for a second year in IPC II. Table 1 details the program requirements in 2018–2019.

**Online Component**

The aforementioned IMR curriculum developed for primary care residents provides the foundation for the interactive online component of IPC and is important to the IPC for several reasons. As IM is a new field, few psychiatry faculty have received training in or have had the opportunity to utilize IM in clinical practice. Thus, the availability of a standardized, online curriculum shown to be effective and feasible in other fields ensures that residents have access to consistent, evidence-based content that meets the highest standards of medical education and provides a broad foundation for IM training.\textsuperscript{26} Online courses also allow flexibility in scheduling; given the time demands on residents, it is important that they can access materials when and where they are able. The IM-trained and experienced IPC directors selected 95 hours of the most essential and relevant content for psychiatry trainees from the existing AWCIM IMR online curricula. The IM curriculum includes Introduction to IM, Mind-Body Medicine, Physician Well-Being, Motivational Interviewing, Neural and Mental Health, Complementary Medicine, Dietary Supplements, Nutrition, and Special Topics (Table 2).

**Experiential Component**

The in-person experiential component of the IPC occurs during a 2-hour per week dedicated session
longitudinally during the academic year. It starts with a 10-week Mind-Body Skills Group (MBSG) series based on The CMBM model. The MBSG promotes self-care and well-being among residents through learning and practicing skills to enhance self-awareness, resiliency, and stress management. The CMBM model is an evidence-based program developed in the mid-1990s, has been used to train more than 6000 physicians and community leaders, and has been utilized at more than 15 medical schools. This model was chosen because of its proven effectiveness and its foundation in evidence-based mind–body approaches and techniques. The model requires a CMBM-certified facilitator who can skillfully guide participants through the sometimes challenging course. It is important that the facilitator not be in a supervisory position to the trainees so that they feel comfortable discussing personal issues. In turn, the trust that is developed among participants helps build a supportive community among colleagues that can ease the strains of residency training.

Following the MBSG, other experiential sessions led by psychiatry faculty and select community practitioners of IM cover a variety of IM topics, including nutrition in mental health, biofeedback and neurofeedback, herbal medicine, acupuncture, Ayurveda, and more. The topics are chosen because they reflect treatments patients often adopt on their own; hence, it is important for psychiatrists to be familiar with up-to-date evidence on the safety and efficacy of these options. The experiential sessions familiarize trainees with a variety of IM techniques for themselves, based on the premise that familiarity through personal experience increases knowledge and confidence in determining whether or not to consider or recommend an approach to a patient. The experiential sessions both augment and complement the online curriculum. For example, a presentation on motivational interviewing follows the online module on the topic. Many of the sessions cover psychiatry-specific topics that are not currently included in the online curriculum.

Supplementary sessions include trainees facilitating journal club, an opportunity to critically analyze the literature. Other sessions are devoted to case presentations, in which trainees synthesize and articulate what they have learned and discuss select cases in depth. Trainees write a reflection paper about their experience in the IPC as well as a literature review paper on an IM topic of choice as it relates to psychiatry.

### Clinical Component

For the first 2 months of the academic year, a series of educational patient evaluations are conducted at the Integrative Psychiatry Clinic, which opened in 2017 in response to repeated trainee requests for more clinical care.
experience in integrative psychiatry. In these sessions, the IPC supervising psychiatrist and one of the trainees interview the patient while the other IPC trainees observe behind a 1-way mirror. Following the hour-long interview, the supervising psychiatrist meets with the trainees to create a biopsychosocial–spiritual formulation and a comprehensive treatment plan utilizing an integrative approach. In addition, each IPC trainee completes 2 to 3 new patient evaluations and approximately 20 follow-up patient visits per month in the clinic. All patients seen by residents and fellows in the Integrative Psychiatry Clinic count toward the trainee’s outpatient clinical requirements. In the setting of our busy resident/fellow university-based clinic, a mix of child, adolescent, and adult patients are assigned to the trainees depending upon residency or fellowship training status and interest. Some of the revenue generated from the clinic helps to fund the educational costs of the IPC program. Indirect supervision is provided by an IPC supervising psychiatrist in a group format 2 to 3 times per week; these hour-long supervision sessions begin with a 5-minute mind–body skills exercise led by one of the trainees, followed by discussion of cases seen in the clinic over the prior week. The supervision session also incorporates weekly “Learning Rounds,” in which each participant shares 1 interesting fact they have learned from the online modules or other readings related to integrative psychiatry.

Supporting Materials

In addition to the core online, experiential, and clinical components described above, the IPC directors have developed an electronic resource collection of course guidelines, syllabi, schedules, and sample documentation for initial evaluation and follow-up visits to support residents in training. The collection includes peer-reviewed articles on IM topics related to psychiatry; it also

| Table 2. Online Coursework. |
|----------------------------|
| **Unit** | **Course** | **Hours** |
|----------------------------|
| Introduction to integrative medicine | Introduction to integrative medicine | 0.5 |
| Medical informatics | | 1 |
| Mind-body | Foundations of mind-body medicine | 3 |
| | Mind-body modalities | 5.5 |
| | Spirituality and health care | 3 |
| Physician well-being | Sleep and dream health | 3.5 |
| | Physician well-being | 4.5 |
| | Physical activity in health (optional) | 0.5 |
| | The anti-inflammatory diet | 4.5 |
| Motivational interviewing | Motivational interviewing: An introduction | 5 |
| Neural and mental health | Introduction to integrative mental health | 7 |
| | Introduction to integrative neurology | 2 |
| Clinical practices | Integrative pain management | 11 |
| | Causes of obesity | 0.5 |
| | PMS/PMDD | 0.5 |
| | Integrative gastroenterology | 1.5 |
| | Integrative diabetes care | 3.5 |
| | Integrative pediatric neurology (optional) | 1.5 |
| Complementary medicine | Whole systems introduction | 3.5 |
| | Botanicals foundations | 8.75 |
| | Aromatherapy and health | 1.5 |
| Dietary supplements | Micronutrients and supplements: An intro | 0.75 |
| | Common dietary supplements | 1 |
| | Vitamins | 1 |
| | Minerals | 0.5 |
| Nutrition | Introduction to nutrition | 5 |
| | Children’s nutrition case studies | 2.25 |
| Special topics | Manual medicine: An overview | 3 |
| | Physical activity for children (optional) | 0.5 |
| | Environmental health: An integrative approach (optional) | 5 |
| | Energy medicine: Foundations (optional) | 0.25 |
| | Practice management (optional) | 3 |
| | Total hours | 95 |

**Abbreviation:** PMS/PMDD: Premenstrual Syndrome/Premenstrual Dysphoric Disorder.
includes a library of phrases that can be incorporated into clinical documentation in electronic medical records to support trainees as they seek to implement IM and demonstrate the evidence base of the recommended treatments. In addition, several patient handouts have been developed, including a list of community practitioners for referrals, information on the use of supplements, mind–body skills, and lifestyle modification topics. Many of the handouts come from the AWCIM online curriculum; others are compiled by IPC directors or obtained from reputable evidence-based sources. Because it is electronic, this collection of resources can be distributed across institutions, making for a shared repository of knowledge and information that contributes to the development and standardization of IM education in psychiatry.

**Integrative Psychiatry Curriculum II**

IPC II was first offered in 2016–2017 and is available to residents and fellows who complete IPC I. It requires 2 or more hours per week of patient care in the Integrative Psychiatry Clinic, consisting of new patient evaluations and/or follow-ups with supervision from IPC faculty. The goals are for trainees to further apply knowledge of IM in a clinical setting and to continue practicing mind–body techniques for their own well-being, self-awareness, and mindfulness in medical practice.

Trainees participating in IPC II can choose to assist with experiential sessions for IPC I. IPC II requirements include engagement in scholarly activity by presenting at the Department of Psychiatry Grand Rounds or contributing to a poster, book chapter, or journal article on an IM topic with faculty supervision. Participants can also take part in Quality Improvement projects to enhance the scheduling, flow, and patient care measurement outcomes at the Integrative Psychiatry Clinic, which hones administrative and management skills.

**Feedback and Response**

Twenty-one residents and fellows have completed IPC I over the 3 years it has been offered at the University of Arizona, and an additional 7 are enrolled in 2018–2019. To receive a certificate of completion in IPC I, residents must attend 80% of the experiential sessions (this takes into consideration leave for vacation and other excused absences). The average attendance since the inception of the IPC is 85%.

Qualitative feedback and attendance rates support the hypothesis that the curriculum is a feasible means of teaching evidence-based IM within psychiatry residency and fellowship training while also advancing physician self-care skills. Quantitative data on participants’ medical knowledge as well as surveys on participant well-being and stress management are being collected for analysis and will be made available at a later date.

Response to the MBSG has been very positive across all years of the IPC. Participants noted that they adopted the mind–body techniques for their own self-care and well-being and utilized the techniques in their patient encounters. Although some participants said that they felt somewhat uncomfortable sharing their personal experiences with their colleagues in the MBSG group, they all indicated that the course was worthwhile and that they would recommend it to others. In fact, the strongly positive response to the MBSG led to residency training directors offering it as a required experience for all incoming residents beginning in 2018.

Regarding the overall curriculum, trainees during the 2017–2018 qualitative exit interviews reported that each component (online, in-person experiential sessions, and clinical) of the curriculum was essential: the online curriculum provided quality information linked directly to the published sources, the in-person experiential teaching facilitated a deeper understanding of important topics, and the clinical experience allowed them to practice translating their new-found knowledge to clinical cases. All the residents and fellows stated that they would recommend the course to other trainees, and many stated that all psychiatry trainees should be taught IM.

**Next Steps**

For the IPC to achieve its full potential as a rigorous, standardized way to incorporate IM into psychiatric training, a number of steps are required. These include (1) building a scholarly community and recruiting other institutions to adopt and pilot the course; (2) securing funding to support activities related to expansion and research; (3) creating additional online curriculum dedicated to psychiatric care, refining and distributing experiential sessions, and making adjustments to facilitate distribution to other training institutions; and (4) conducting assessments and research to document the program’s effectiveness and disseminating the results.

Efforts to build community and recruit more institutions to adopt the IPC have already begun. In 2017, the University of New Mexico (UNM) Department of Psychiatry became the first satellite site to adopt the IPC. UNM began offering the interactive online curriculum with 2-hour optional experiential sessions as an elective for psychiatry residents and fellows in 2018–2019. The IPC directors are supporting UNM efforts through teleconference and in-person consultations as well as by conducting Grand Rounds at UNM and sharing electronic resources. Program development continues at UNM, with plans to incorporate a clinical component and more structured experiential sessions in the near future.
Additional support and community-building opportunities are in place for institutions wishing to integrate IM into their residency training curricula. The AWCIM IMR Program has been training residents and developing faculty for more than 10 years. AWCIM hosts an annual Faculty Development Meeting which includes a Resident Leadership track; it is a multiday meeting for IMR faculty site leaders and select residents from institutions around the country who incorporate IMR in their training programs. Another source of support and community for residents, fellows, faculty, and practicing psychiatrists interested in IM is an Integrative Psychiatry Facebook Group, which is moderated by the IPC directors. Participants are invited to share resources, post new published research, and offer ideas about how to approach challenging cases.

Funding is crucial to support the activities associated with making improvements and adjustments to the course for wider distribution, creating the mechanisms for dissemination, and conducting and publishing research. In order to develop a psychiatry-specific online integrative curriculum, beyond the current modules selected for the IPC from the existing AWCIM online curricula, additional resources are needed. Funding will also support recording of experiential sessions, therefore allowing for standardization and for portability of the program to pilot sites with less faculty expertise in IM. In addition, funding will help with the enhancement of information on patient safety and legal, regulatory, and ethical issues, and will aid in making available supporting tools such as webinars and in the distribution, growth, and updating of the electronic resource collection.

With additional institutions participating in a national pilot, upgraded course materials optimized for distribution, and funding in place, standardized assessments across pilot institutions can be implemented, providing a broader evidence base for evaluation of the effectiveness of the program. This will facilitate the compilation and publishing of the results of such studies.

IPC, the first program of its kind, paves the way for bringing together a cohort of interested psychiatry residency and fellowship training programs to implement IM in psychiatry across multiple sites. We envision that a well-designed and collaboratively implemented IM curriculum can enhance the prevention and treatment of psychiatric disorders while also teaching tools to enhance resident self-care and well-being. It will address a currently unmet need and contribute to the future direction of graduate medical education and mental health care.

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References

1. Academic Consortium for Integrative Medicine and Health. Introduction: Definition of Integrative Medicine and Health. https://imconsortium.org/about/introduction/. Published 2018. Accessed March 7, 2019.
2. National Center for Complementary and Integrative Health. Complementary, Alternative, or Integrated Health: What’s in a Name? https://nccih.nih.gov/health/integrative-health#hed2. Published 2018. Accessed November 9, 2018.
3. Bell IR, Caspi O, Schwartz GER, et al. Integrative medicine and systemic outcomes research: issues in the emergence of a new model for primary health care. Arch Intern Med. 2002;162(2):133–140.
4. Morris ZS, Wooding S, Grant J. The answer is 17 years, what is the question? Understanding time lags in translational research. J R Soc Med. 2011;104:510–520.
5. Papanicolas I, Woskie LR, Jha AK. Healthcare spending in the United States and other high-income countries. JAMA. 2018;319:1024–1039.
6. Shanafelt T, Goh J, Sinsky C. The business case for investing in physician well-being. JAMA Intern Med. 2017;177(12):1826–1832.
7. Multiple Chronic Conditions Chartbook. Agency for Healthcare Research & Quality. 2019. https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/prevention-chronic-275care/decision/mcc/mccchartbook.pdf. Accessed September 14, 2018.
8. Ranjarb N, Ricker M. Burn bright I: reflections on the burnout epidemic, part one of a two-part series. Am J Med. 2019;132:272–275.
9. Blendon RJ, Benson JM, Hero JO. Public trust in physicians—US medicine in international perspective. N Engl J Med. 2014;371:1570–1572.
10. Medscape National Physician Burnout and Depression Report. 2018. https://www.medscape.com/slideshow/2018-life-style-burnout-depression-6009235. Accessed August 10, 2018.
11. Center C, Davis M, Detre T, et al. Confronting depression and suicide in physicians: a consensus statement. JAMA. 2003;289:3161–3166.
12. Kumar S. Burnout and doctors: prevalence, prevention and intervention. Healthcare. 2016;4(3):E37.
13. Clarke TC, Black LI, Stussman BJ, Barnes PM, Nahin RL. Trends in the use of complementary health approaches among adults: United States, 2002–2012. National Health Statistics Reports No. 79. Hyattsville, MD: National Center for Health Statistics; 2015. https://www.cdc.gov/nchs/data/nhsr/nhsr079.pdf. Accessed April 15, 2019.
14. Nahin RL, Barnes PM, Stussman BJ. Expenditures on complementary health approaches: United States, 2012. National Health Statistics Reports. Hyattsville, MD: National Center for Health Statistics; 2014. https://www.cdc.gov/nchs/data/nhsr/nhsr106.pdf. Accessed March 7, 2019.
15. Black LI, Clarke TC, Barnes PM, Stussman BJ, Nahin RL. Use of complementary health approaches among children aged 4-17 years in the United States: National Health Interview Survey, 2007–2012. National Health Statistics Reports No. 78. Hyattsville, MD: National Center for Health Statistics; 2015. https://www.cdc.gov/nchs/data/nhsr/nhsr078.pdf. Accessed April 15, 2019.

16. Unützer J, Klap R, Sturm R, Young AS, Marmon T, Shatkin J, Wells KB. Mental disorders and the use of alternative medicine: results of a national survey. Am J Psychiatry. 2000;157:1851–1857.

17. American Psychiatric Association. What is psychiatry? https://www.psychiatry.org/patients-families/what-is-psychiatry. Accessed November 9, 2018.

18. Taylor AG, Goehler LE, Galper DI, Innes KE, Bourguignon C. Top-down and bottom-up mechanisms in mind-body medicine: development of an integrative framework for psychophysiological research. Explore. 2010;6:29–41.

19. Kemp AH, Quintana DS. The relationship between mental and physical health: insights from the study of heart rate variability. Int J Psychophysiol. 2013;89:288–296.

20. Kolacz J, Porges SW. Chronic diffuse pain and functional gastrointestinal disorders after traumatic stress: pathophysiology through a polyvagal perspective. Front Med. 2018;5:145.

21. Ranjbar N, Villagomez A, Brooks AJ, Ricker M, Lebensohn P, Maizes P. Assessing integrative psychiatry curriculum needs. Glob Adv Health Med. 2019.

22. American Council on Graduate Medical Education and American Board of Psychiatry and Neurology. The psychiatry milestone project. https://www.acgme.org/Portals/0/PDFs/Milestones/PsychiatryMilestones.pdf?ver=2015-11-06-120520-753. Published 2015. Accessed December 31, 2018.

23. Jani AA, Trask J, Ali A. Integrative medicine in preventive medicine education: competency and curriculum development for preventive medicine and other specialty residency programs. Am J Prev Med. 2015;49:S222–S229.

24. Center for Mind Body Medicine. Professional training in mind body medicine. https://cmbm.org/training/mind-body-medicine-esalen-2019. Published 2018. Accessed December 4, 2018.

25. Benn R, Maizes V, Guerrera M, Sierpina V, Cook P, Lebensohn P. Integrative medicine in residency: assessing curricular needs in 8 programs. Fam Med. 2009;41:708–714.

26. Lebensohn P, Kligler B, Dodds S, et al. Integrative medicine in residency education: developing competency through online curriculum training. J Grad Med Educ. 2012;4:76–82.

27. Gordon JS. Mind-body skills groups for medical students: reducing stress, enhancing commitment, and promoting patient-centered care. BMC Med Educ. 2014;14:198.

28. Saunders PA, Tractenberg RE, Chaterji R, et al. Promoting self-awareness and reflection through an experiential mind-body skills course for first year medical students. Med Teach. 2007;29(8):778–784.