

Interprofessional Integrative Medicine Training for Preventive Medicine Residents



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Integrative medicine training was incorporated into the Rutgers New Jersey Medical School Preventive Medicine residency at the Rutgers Biomedical and Health Sciences Newark Campus as a collaboration between the Rutgers New Jersey Medical School and the School of Health Related Professions. Beginning in 2012, an interdisciplinary faculty team organized an Integrative Medicine program in a Preventive Medicine residency that leveraged existing resources across Rutgers Biomedical and Health Sciences. The overarching aim of the programs was to introduce residents and faculty to the scope and practice of integrative medicine in the surrounding Newark community and explore evidence-based research on integrative medicine. The faculty team tapped into an interprofessional network of healthcare providers to organize rotations for the preventive medicine residents that reflected the unique nature of integrative medicine in the greater Newark area. Residents provided direct care as part of interdisciplinary teams at clinical affiliates and shadowed health professionals from diverse disciplines as they filled different roles in providing patient care. The residents also participated in research projects. A combination of formal and informal programs on integrative medicine topics was offered to residents and faculty. The Integrative Medicine program, which ran from 2013 through 2014, was successful in exposing residents and faculty to the unique nature of integrative medicine across professions in the community served by Rutgers Biomedical and Health Sciences.

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Introduction

Integrative medicine (IM) and preventive medicine (PM) have the same overall goal: to optimize, protect, and promote health. The field of IM encompasses methods to care for the whole person (mind, body, and spirit).¹ This includes aspects of

primary prevention (diet, exercise, stress reduction), as well as a wide array of complementary and alternative medicine (CAM) practices.^{1,2} The delivery of care across the IM spectrum can involve a wide range of providers. Practitioners with expertise in IM include primary care providers (e.g., internists and pediatricians) who consult and refer patients for treatment, licensed providers of alternative therapies (acupuncture, massage, naturopathy), practitioners of creative arts therapies (music, art, dance), and allied health professionals (nutrition, exercise, counseling.) Additionally, teachers of yoga, qigong, and tai chi, and practitioners of other therapies, fall within the IM paradigm.

There is ongoing recognition that adults in the U.S. pursue CAM treatments for a wide range of purposes.^{3–9} Currently, half of U.S. medical schools provide some type of training about CAM at the undergraduate level.¹⁰ But this training appears to be general in nature, with the goal of providing familiarity with different approaches to healing. Topics in lifestyle medicine, such as nutrition and exercise, that are considered part of IM and also key

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to optimal primary care have been identified as relevant to medical education,¹¹ but are not yet widely taught in the undergraduate medical curriculum.¹² This presents potential for registered dietitians and professionals across the exercise and rehabilitation field to engage in collaborative IM care with physicians.

Enthusiasm for interprofessional education (IPE) in medical schools^{13–15} recognizes that physicians can play pivotal roles in multidisciplinary IM teams. IPE involves different healthcare professionals learning about, with, or from each other.¹⁶ In health care, this often refers to collaborative team-based opportunities to work cooperatively with other providers in provision of coordinated care. For example, an acupuncturist working as part of a multidisciplinary stress management team might work with a primary care provider, psychiatrist, clinical psychologist, social worker, and massage therapist to develop, implement, and assess potential effectiveness of a patient care plan. But IPE can also involve “show and tell” where providers can learn about and from each other through sharing of information about education, as well as approaches to assessment and treatment. Regardless of the teaching approach used in IPE, the ultimate goal is in better overall delivery of health care that can occur when providers have foundational knowledge about each other and are able to communicate on behalf of patients. The wide range of healthcare providers across the IM field suggests that IM should be examined as both a preventive healthcare strategy and a public health issue from an interdisciplinary perspective.¹⁷

The IM program within the PM residency at Rutgers Biomedical and Health Sciences (RBHS) Newark Campus was launched as a collaboration between the Rutgers New Jersey Medical School (NJMS) and Rutgers School of Health Related Professions (SHRP). The aims of the program were to introduce PM residents in the scope of IM, explore the practice of IM in the community surrounding RBHS, and examine research evidence in the clinical application of IM. Of particular interest was the role that nonphysician healthcare professionals play in clinical delivery of IM.

The RBHS is a statewide, multicampus institution composed of eight schools. It was created in 2013 when the University of Medicine and Dentistry of New Jersey merged with Rutgers University, the State University of New Jersey, to form an institution that provides comprehensive education of professionals across the spectrum of healthcare practice. RBHS-based practice groups and clinical affiliates provide health care in nearly every specialty and subspecialty of health care. The greater Newark geographic area is home to communities considered to be among the most culturally and ethnically

diverse in the U.S. The envisioned training for PM residents in IM was intended to focus on the interprofessional nature of healthcare delivery across the IM paradigm.

A critical theory¹⁸ approach was employed to develop an IM component in the PM residency. Critical theory involves an analytic curriculum design to serve as a catalyst of change. The aim of the overall program was not simply to explain IM to the residents, but to also provide a framework to examine the interprofessional nature of IM at RBHS through engagement of faculty and clinical affiliates. The envisioned IM/PM resident curriculum was intended to leverage existing resources across RBHS schools to develop programs, solicit input from faculty and clinical affiliates who were trained in IM practice, and explore the culture of the newly merged institution. The purpose of this paper is to describe the process of designing and implementing a PM resident rotation in IM that emphasized interprofessional practice, the role of physicians in the IM paradigm, and evidence-based research methods. The program began in 2012 and this analysis, prepared in 2015, reports on the first 2 years of the program.

Program Design

An interdisciplinary leadership team composed of faculty members with affiliations at four RBHS Schools (NJMS, SHRP, the School of Public Health, and the Graduate School of Biomedical Sciences) was formed to oversee the development of the IM residency. The overarching aims of the leadership team were to examine characteristics of IM across the institution and develop training opportunities for PM residents. Through assessment within RBHS, as well as at clinical and teaching affiliates in the community, a compilation of faculty expertise, interests, and research resources was developed to serve as source material. An array of potential IM programs, educational activities, and research resources were identified, all of which involved some aspect of IPE.

A core group of faculty and activities at RBHS and affiliates were identified as resources to be involved in customized IM rotations for residents. Curriculum resources and research activities from SHRP's online graduate program in IM were identified as potential teaching resources for the residents and for faculty development. A list of faculty development activities was planned using a variety of formats to explore what would work well on the newly integrated campus. The resulting program had a flexible structure that offered a core set of IPE activities for each resident, along with educational activities that involved faculty and clinical affiliates.

Other universities and training institutions in New Jersey that offer educational programs for acupuncture, massage therapy, music therapy, art therapy, and yoga teaching were contacted to identify providers to participate in educational activities for faculty and residents.

The IM component of the PM residency involved an 8-week block rotation with an emphasis on interprofessional activities. Each resident was provided with a schedule involving a flexible set of meetings with providers across the spectrum of IM in different clinical settings. Physicians with training in IM were identified at clinical and research affiliates. These physicians worked in interprofessional teams providing holistic and interdisciplinary care. During clinical rotations, the residents provided direct care as part of interprofessional teams at various clinical affiliates. Sites used for clinical rotations included:

- An interdisciplinary urban clinic in Newark that provided charity care. Students from RBHS clinical training programs, supervised by faculty preceptors, provided health screenings and treatment to walk-in patients. The residents worked with students from the nurse practitioner, physician assistant, nursing, respiratory therapy, clinical nutrition, pharmacy, and social work programs.
- A suburban IM center run by an IM physician. The center offered acupuncture, massage therapy, nutritional assessments, and lifestyle coaching. The residents worked with the IM physician and nurse practitioner on patient consultations and referrals for integrative treatments.
- A rotation at the Veterans Affairs New Jersey Health Care System Center for Health and Wellness. A multidisciplinary healthcare team led by a physician boarded in internal medicine and PM and includes a psychologist, health coach social worker, and public health nurse, as well as primary care teams, health psychologists, an IM-trained physician, acupuncturists, and a yoga teacher.
- A free urban walk-in clinic. The residents worked with students and faculty from the physician assistant program to provide primary care for patients in an underserved area. The prevalence of chronic conditions in the multicultural community provided the opportunity to apply cultural competence to care that emphasized behavior change strategies.
- A dental clinic where residents worked with teams of dental students, dental faculty, and registered dietitians. The team-based approach aimed to make an impact on the oral health of the patient from a local and systemic perspective that included dental treatment as well as diet and nutrition intervention.

A combination of formal and informal programs were offered as faculty development and incorporated into resident training. The aim was to stimulate a dialogue about IM within RBHS in addition to providing educational opportunities for residents and faculty. A series of monthly 2-hour seminars brought together CAM providers with faculty and residents in a small group format. The program design involved a presentation followed by facilitated discussion. Each invited provider presented an overview of their education, credentialing process, and the role of their modality in healthcare delivery within the community. They also applied the theories and practices used in their modality to a medical condition or clinical issue. Topics included pain management, psychosocial stress, and health promotion/health maintenance. The facilitated discussion included an interprofessional case presentation providing an opportunity for seminar attendees to share ideas on how the case would be assessed and treated by providers in different areas of healthcare practice (Table 1).

An important outcome of the discussion at every seminar was recognition that patients often take the initiative to seek treatment as an alternative to available conventional health care or as a complement to ongoing treatment. The community-based presenters (i.e., those not affiliated with a conventional healthcare facility)

Table 1. Interprofessional Participants in the RBHS IM/PM Rotation

Acupuncturist
Art therapist
Certified nurse-midwife
Feldenkrais practitioner
Health psychologist
Integrative physician
Mental health counselor
Licensed massage therapist
Music therapist
Nurse practitioner
Physical therapist
Physician/acupuncturist
Psychologist/clinical hypnotist
Registered dietitian
Social worker/health coach
Yoga instructor

IM, integrative medicine; PM, preventive medicine; RBHS, Rutgers Biomedical and Health Sciences.

reported great interest in collaboration with conventional healthcare providers in providing complementary treatments, but reported that this type of collaboration was not easy to foster. Each seminar concluded with a mini journal club, which involved a summary critique of an outcomes research article on assessing effectiveness or application of the therapy to the symptom or medical condition that was the focus of the seminar presentation.

A series of large group lectures were held to provide prospective on the role of physicians in IM. Physicians from clinical affiliates with training in IM also gave invited lectures to faculty and the residents. The presenters described the components of their IM training and how it fit into their approach to IM health care. They summarized their experience about their role in providing holistic care and collaboration with other healthcare professionals to provide on integrative care.

Annual panel discussions were held to present contrasting views on a CAM treatment. The panels (yoga in Year 1 and acupuncture in Year 2) involved discussions by community-based providers. The presentations, open to faculty, residents, and students, provided insight into the use of each therapy as part local health care as well as the broader delivery of IM within the community.

Recognition of the need for a type of large event to bring together faculty was identified as important by the leadership team. The objectives were to attempt to gain a better understanding of the informal network of IM providers across RBHS and to connect faculty at the newly integrated institution with each other. A symposium was held to give faculty the opportunity to share information about research and programs. Poster presentations included reports on original research, approaches to evidence-based practice, and reports of clinical delivery of IM care. A luncheon held after the poster presentation session offered an informal networking opportunity for faculty, residents, students, and interested members of the local IM community to seek out future collaborations.

As part of the PM/Public Health residency program, residents complete coursework leading to the MPH degree in the Rutgers School of Public Health. The residents concentrate in the area of Quantitative Methods: Epidemiology and Biostatistics. Throughout the program, the residents were encouraged to use the critical thinking and research skills from their public health coursework when evaluating IM practices and programs. An additional requirement of the resident rotation was to have exposure to IM research. The format was flexible to accommodate resident interests and ongoing projects. The projects were unique for each resident because they were scheduled based upon what was available during the rotation and ability to match the project method or approach with each

resident's interests. Residents joined research teams with SHRP faculty and, depending on the phase of each project, participated in proposal development, data collection, data analysis, or report preparation. Two residents participated in ongoing research on massage therapy, one resident participated in proposal development for a yoga study, and two residents used secondary data analysis to examine CAM utilization in the U.S.

Program Evaluation

The NJMS PM residency is new, and of its first five graduates, all completed the IM rotation. A standard form used for all NJMS PM residency practicums was used by residents to evaluate the program. Residents were evaluated by faculty. Residents were asked to self-evaluate for the competencies developed by the Steering Committee established for this Health Resources and Services Administration–funded IM/PM development project. All increased competency in use of multidisciplinary interprofessional teams to optimize delivery of IM in clinical PM. The residents reported developing an appreciation of the number of different professionals and practitioners providing care across the whole spectrum of IM. In the post-residency self-evaluation, the residents indicated that the IM rotation reinforced their own confidence in providing holistic assessment of patients.

Program Summary

The IM training incorporated into the NJMS PM residency reflected the unique presentation of interprofessional IM care at RBHS and characteristics of healthcare practice in the greater Newark community. The overarching project permitted the opportunity to examine how IM factors into RBHS education and clinical practice by identifying a network of providers across the newly integrated institution and at clinical affiliates. The combination of integrative clinical experiences in urban and suburban settings with different teams of healthcare professionals across the IM spectrum illustrated the interprofessional nature of care. The research projects gave residents the opportunity to formulate their own questions related to IM research and engage in additional review of literature relevant to the projects. These readings provided an introduction to IM theories and practices of different modalities, as well as examples of research to evaluate effectiveness of alternative and integrative approaches to treatment.

A few challenges were evident in the design and execution of the program. One was the shifting landscape created by the merger between the University of Medicine and Dentistry of New Jersey and Rutgers. Another challenge involved the need for a flexible menu of research and program activities for the residents with

varied scheduling depending on availability. Activities developed for the residency also provided the opportunity for the residents and faculty to engage in different types of IPE activities to foster learning within the newly integrated institution. The willingness of faculty and clinical partners to collaborate in the residency has paved the way for possible future cooperative activities both in education and in provision of IM care.

The University of Medicine and Dentistry of New Jersey–Rutgers institutional merger presented a larger pool of possible cross-institutional partners for IPE collaborations in general, along with a potentially bigger fund of faculty knowledge in IM. A positive outgrowth from the interdisciplinary leadership committee is interest in ongoing collaboration in education and research. The ability of an interprofessional group of faculty to work closely together for an extended period of time stimulated possibilities for research and programs to explore IM in the very diverse patient community served by RBHS and clinical affiliates.

Next Steps for the Rutgers Biomedical and Health Sciences Program

Several program modifications are recommended:

- The SHRP/NJMS/School of Public Health faculty leadership, partners at the Veterans Administration New Jersey Health Care System, and residents, agree that the program to introduce IM into PM training should continue. There is general consensus to convert the practicum to a longitudinal program rather than a discrete 2-month block. This proposed format will allow residents to meet with the IM leadership faculty periodically to discuss how their PM work relates to IM concepts. The envisioned longer format will permit time for the residents to complete a literature review or a research project.
- The Symposium is planned to be an annual event. More-widespread announcements are planned to invite faculty and students across all of RBHS and Rutgers University to share information about their research and programs. Community-wide publicity will be scheduled with the aim of fostering a broader base of connection with IM providers in the surrounding areas.
- Specific departments in NJMS, School of Nursing, and Dental School will be consulted on possible topics of interest for seminars and panel discussions. The aim is to tailor these activities to specific groups of providers in a way that is relevant to their teaching and practice.
- Finally, national leadership can continue to work to align the IM competencies with PM competencies, not only for clinical applications but also in areas pertinent to public health and policy/administrative areas.

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