The Initiative for Innovation in Pediatric Education: The Next Chapter

This is the final installation for the Initiative for Innovation in Pediatric Education (IIPE) pages in Pediatrics. We have now reached a maturation point that allows our first cohort of principal investigators to engage in synthesizing results for submission as original research manuscripts. Born of the Residency Review and Redesign Project1 spearheaded by the American Board of Pediatrics, IIPE is now in its third year of implementation. There are currently 7 projects under way involving 18 implementation sites. This last commentary provides me the opportunity to update the community on lessons learned and new developments, and also to invite more widespread participation of our community in educational innovation.

LESSON 1: CONTEXT MATTERS

In an article entitled “It’s NOT Rocket Science: Rethinking Our Metaphors for Research in Health Professions Education,” Regehr2 (p. 38) speaks to a research agenda for medical education, stating that “Education research is not rocket science, which is built on a structured, linear system… . Rather, if we must make analogies to the physical sciences, we might … look to quantum mechanics and chaos theory. Such analogies will lead us away from the search for proofs of simple generalisable solutions to our collective problems, and towards the generation of rich understandings of the complex environments in which our collective problems are uniquely embedded.” Likewise program evaluation that deals with innovation in complex environments should focus not only on what works and what does not but why. With the help of the IIPE Research Support Team, we have engaged in a process of developmental evaluation that focuses on program improvement based on continuous evaluation and reflection. The results to date appeared in an article entitled “The Initiative for Innovation in Pediatric Education: A Snapshot of a Program Evaluation.”3 The feedback from those participating in qualitative interviews is the substance of the lessons learned outlined in the following paragraphs. This feedback has been instrumental in improving the path forward as the next chapter of IIPE unfolds.

LESSON 2: CONSISTENCY IN MESSAGING IS CRITICAL IF YOU WANT THE MESSAGE UNDERSTOOD

While addressing the continuum of education has been 1 of the 3 goals of IIPE, our mission, vision and even tagline focused on graduate medical education. We have recently revised all to broaden our focus (www.innovatepeds.
The updated mission statement reads: "To initiate, facilitate and oversee innovative change in pediatric medical education through carefully monitored, outcome-directed experimentation." Our vision is "Pediatric medical education will improve the health of children, adolescents and young adults by adapting to changes in their health care needs and changes in the organization and delivery of health care." Finally, the new tagline for our logo is "Transforming pediatric education and care." The hope is that by explicitly broadening our scope we will interest educators across the continuum in engaging in innovation.

**LESSON 3: QUALITY IMPROVEMENT METHODS ARE CRITICAL TO BOTH EDUCATION RESEARCH DESIGN AND OUTCOMES**

Because a main purpose of education research is to study and learn from our practices and interventions for the sake of improving and disseminating them, we recognized that those protocols that had built continuous quality improvement methodology into their structure were more likely to be generalizable (eg, through staged learning and testing cycles before full-scale implementation or through the establishment of an oversight committee to monitor successes and failures and make course corrections when needed). As a result, the IIPE Oversight Committee unanimously endorsed a path forward in which we begin to develop and implement quality improvement (QI) methods such as plan-do-study-act cycles into our research protocols.4

In addition, the purpose of innovation in the case of IIPE is to improve the educational outcomes of learners with the intent of ultimately improving the care of their patients. The optimum outcome of education research is thus demonstrating a link between educational outcomes and patient care outcomes. We have begun discussions with some experts in QI to explore ways to focus on this linkage in our work.

These efforts to build improvement science tenets into educational research design and to more effectively demonstrate both learner and patient outcomes will likely require adding the skills of a QI expert to our Research Support Team, currently composed of an expert in quantitative methods and an expert in qualitative methods.

**LESSON 4: TRANSFORMATION CAN ONLY OCCUR THROUGH PARTNERSHIPS**

The most important lesson is that transformational change is not possible without partnerships, those within the pediatrics community and beyond. This is the motivation behind the partnership between IIPE and The Association of Pediatric Program Directors (APPD) to create APPD LEARN (Longitudinal Educational Assessment Research Network). Through this partnership we were able to support the creation of an infrastructure and a data repository for educational research. APPD LEARN will serve the membership of APPD who are engaged in educational research. It will also support those engaged in a new pathway toward innovation through the IIPE APPD LEARN partnership. The traditional pathway to innovation through IIPE has been via site-proposed projects based on 1 of the 3 goals of IIPE. This new path will provide requests for applications to address centrally proposed projects developed collaboratively between IIPE and APPD LEARN leadership. This path is being developed in response to feedback from members of our community interested in participating in educational innovation who do not have the necessary local resources. These projects will address critical questions important to our community as a whole and will provide centrally based resources to support engagement of interested individuals within the pediatric community.

The inaugural project for the new pathway will be studying the pediatric milestones.5 The Milestone Project was spearheaded by the Accreditation Council for Graduate Medical Education (ACGME) in partnership with the American Board of Pediatrics for the purpose of refining the ACGME competencies in the context of the specialty, setting performance standards for reaching milestones, and identifying and/or developing national assessment tools. A national observational study of the current draft of the pediatric milestones (https://www.abp.org/abpwebsite/publicat/milestones.pdf) will have 2 purposes: (1) to ensure that the sequencing of the milestones for each of the competencies within the ACGME domains is correct and (2) to determine level of performance typically achieved by learners at various stages of development and at points of transition.

The APPD, in partnership with the National Board of Medical Examiners (NBME), embarked on a pilot project to study a cluster of milestones relevant to subinterns and interns in the general inpatient setting. The NBME adds their expertise in assessment and information technology to the expertise of the pediatric program and clerkship directors and the resources of APPD LEARN, which will serve as the data repository for the project. The hope is that the NBME collaboration around the milestones pilot study is just the beginning of a long and productive partnership for all involved.

There is much to be done to bring about innovation that is transformative but we as a community are poised to accept the challenges and collaborate with others who share our commitment to transformational change in medical education for the sake of improving...
care for our patients. Our partnerships have led us to the pivotal point of transcending our traditional silos and collaborating within and beyond our community in a way that has never happened in medical education. As Balmer3 (p. 1018) points out in her discussion of the first iteration of the evaluation of IIPE, its “greatest resource may be the participants themselves, who are driven to transform pediatric education through systematic, data-informed processes, and are committed to sharing what they learned about and through transformation.” The new pathway of IIPE was created with the intention of engaging our entire community. We invite you to become participants and collaborators in this process. You are our greatest resource!

REFERENCES

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