

Improvement Is the Prize: Suggestions for Success

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To the Editor:

I read with great interest the thorough consideration that Cooper and colleagues have given to facilitating the use of patient outcomes in medical education research (1). The authors make a very persuasive case for the importance of a focus on patient outcomes in education research and provide a framework and guidance for future researchers on how to overcome barriers to this important work. Their suggestions for collaboration with outcomes researchers and quality improvement experts to assist with outcome selection and method refinement are especially salient. In fact, I would argue that medical education research is, foundationally, quality improvement research, which has been defined by Batalden and Davidoff (2) as “efforts ... to make the changes that will lead to better patient outcomes” (p. 2). The field of quality improvement has some important

lessons for medical educators hoping to impact outcomes.

I am not the first person to have this impression: Wong and Headrick have written a detailed and highly instructive article on this topic previously (3). One central point they raise is the need to understand the systems on which we intervene with medical education research. A medical education intervention to improve intubation first-pass success rates needs to understand the causes of first-pass failures and what personnel, process, and environmental factors give rise to these causes. This can be done with process mapping and/or failure modes effects analysis to identify specific knowledge deficits on the part of the learner, as well as any systemic factors that may exacerbate or ameliorate these deficits (4, 5).

Wong and Headrick also highlight the utility of iterative improvement that is foundational to many quality improvement

(Received in original form February 26, 2024; accepted in final form March 8, 2024)

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Supported by a Walter B. Frommeyer, Jr. Fellowship in Investigative Medicine from the Department of Medicine at the University of Alabama at Birmingham Heersink School of Medicine.

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ATS Scholar Vol 5, Iss 2, pp 337–338, 2024
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DOI: 10.34197/ats-scholar.2024-0015LE

models, such as the Plan-Do-Study-Act framework or the Design, Measure, Analyze, Improve, and Control framework (3, 4). Both of these frameworks are widely used for quality improvement and allow for iterative implementation and evaluation of interventions. By measuring process metrics and overall outcomes across the target process, these cycles of implementation and evaluation can pinpoint specific steps of the process that are, or are not, improved with the each implemented intervention.

Finally, it would be beneficial for medical educators to develop multifaceted interventions that include education for all stakeholders on a medical team to drive maximal engagement with the intervention. Medical wards, intensive care units, and outpatient clinics are all interprofessional environments and the most successful quality improvement interventions will incorporate that fact into the project design, planning, implementation, and feedback phases. Many of the most successful trials establishing best practices in critical care have relied on interprofessional

interventions, such as the Awakening and Breathing Controlled trial, which required input from nurses, respiratory therapists, and clinicians (6). Inclusion of interprofessional education can help to reinforce concepts, improve communication, and increase buy-in from all stakeholders on the medical team.

I believe that medical education interventions have great promise for improving patient outcomes and that proper application of quality improvement fundamentals can facilitate this process. Holistic approaches to process mapping and intervention design, an iterative framework for implementation and evaluation, and interprofessional inclusion are all strategies that can increase the impact of medical education interventions. I would highly encourage medical educators to seek out collaborations with quality improvement experts to improve the care that our trainees deliver.

Author disclosures are available with the text of this article at www.atsjournals.org.

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