

Program Directors Patient Safety and Quality Educators Network: A Learning Collaborative to Improve Resident and Fellow Physician Engagement

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Background

Since 2012, the Accreditation Council for Graduate Medical Education's (ACGME's) Clinical Learning Environment Review (CLER) Program has been conducting site visits to hospitals, medical centers, and ambulatory sites that serve as clinical learning environments (CLEs) for resident and fellow physicians in training.¹ The CLER program provides each CLE it visits with formative feedback on cross-cutting areas of focus, including patient safety and health care quality. At the end of each cycle of visits, the CLER program provides a national report of findings, publishing its first National Report in 2016 and its second in 2018. The reports noted that clinical learning environments vary in their approach to and capacity for addressing patient safety and health care quality and the degree to which they engage residents and fellows in these areas.^{2,3} These reports also noted that clinical learning environments vary in the extent to which they invest in continually educating, training, and integrating faculty members and program directors in the areas of health care quality, patient safety, and other systems-based initiatives.^{2,3}

The *CLER National Report 2018* showed CLEs varied widely in the percentage of resident and fellow physicians who experienced a patient safety event and also submitted an event report through the organization's reporting system, with a median of just 50%, revealing much room for improvement. This report

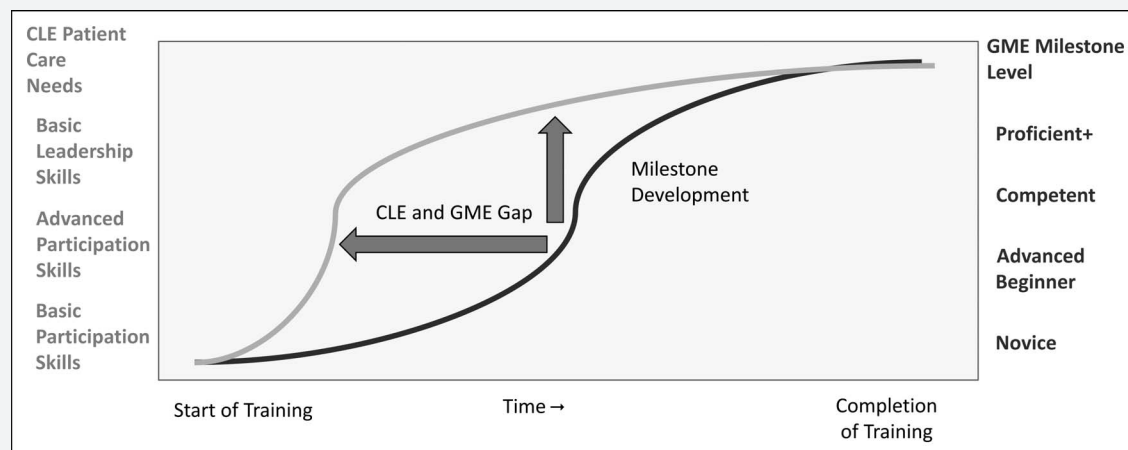
also highlighted the importance of going beyond equipping residents and fellows with knowledge of patient safety and emphasized the need for efforts that inspire them to engage with their CLE to take action.

In 2018, the ACGME's Department of Research, Milestone Development, and Evaluation released Systems-Based Practice Milestones for Patient Safety and Quality Improvement to highlight developmental markers for engaging residents and fellows in addressing patient safety and health care quality as part of their comprehensive training.^{4,5} At the same time, the ACGME also recognized a growing need for faculty development in these areas. The ACGME's Department of Education conducted a faculty needs assessment that revealed the need for widespread faculty development in the areas of patient safety and health care quality. Further analysis suggested that sponsoring institutions and residency and fellowship programs in particular lacked faculty who can mentor and guide residents and fellows in experiential learning in these areas.

Between 2016 and 2021, the CLER Program's Pursuing Excellence Initiative⁶ facilitated several learning collaboratives that included efforts to identify new educational models and build capacity to engage residents and fellows in addressing patient safety and quality.^{7,8} These efforts, aimed at the level of the sponsoring institution and CLE, were designed to recognize the importance of building partnerships between graduate medical education (GME) and CLE leaders in patient safety and quality. In particular, the Pursuing Excellence Pathways Leaders Collaborative embraced a framework put forth by the National Collaborative for Improving the Clinical Learning Environment⁹ that emphasized engaging learners in

DOI: <http://dx.doi.org/10.4300/JGME-D-22-00490.1>

Editor's Note: The ACGME News and Views section of JGME includes data reports, updates, and perspectives from the ACGME and its Review Committees. The decision to publish the article is made by the ACGME.

**FIGURE 1**

Optimal Resident Competency Development in Patient Safety and Quality From 2 Stakeholder Perspectives: The Needs of the CLE and the Expectations From GME

Abbreviations: CLE, clinical learning environment; GME, graduate medical education.

addressing patient safety as early as possible in their training.

From the confluence of these efforts emerged the realization that GME and CLEs viewed resident and fellow engagement in patient safety and health care quality from 2 different perspectives: (1) resident and fellow competency as reflected through milestone levels of progression, and (2) CLE patient care needs (FIGURE 1). From the educator's perspective, the milestones for safety and quality could comfortably span the duration of training, with higher levels of achievement happening toward the end of the training experience. However, from the CLE's perspective, patient care necessitates introducing these developmental markers much earlier in training so that students, residents, and fellows in all health care professions can contribute meaningfully to the CLE's efforts to ensure safe, high-quality patient care. Engaging learners early in training on patient safety and quality practices may also better ensure continued integration into practice after training is completed.

To close the gap regarding educational needs and expectations, and also to address the need for faculty development, the Education Committee of the ACGME Board of Directors approved a new initiative in June 2018 with the following aim:

“Design, pilot, and implement a national learning network for program directors and their faculty to rapidly advance their capacity to develop, model, and evaluate resident and fellow engagement in patient safety/quality improvement.”

In time, the initiative came to be called the Program Directors Patient Safety and Quality (PDPQ) Educators Network.

Creation of Joint Partnerships

In designing this new initiative, the ACGME sought to utilize models of learning and support with proven sustainability and spread. With over 12 000 ACGME-accredited residency and fellowship programs in the United States, the model needed to apply to a wide range of specialties, be feasible in a variety of contexts, and pose minimal financial burden. To further this work, the ACGME sought 2 key partners.

The first of these partnering organizations was the Organization of Program Director Associations (OPDA), convened by the Council of Medical Specialty Societies (CMSS). The ACGME recognized that faculty development largely rests within specialty societies and program director associations. These organizations have longstanding experience in offering activities and programming to help GME leaders stay current on educational content within both their specialties and the broader changing environment of health care. Another important factor in partnering with CMSS/OPDA was the recognition that, while the overall concepts of patient safety and quality improvement cross all specialties, the necessary experiential learning most often happens at the specialty-specific level. In CMSS/OPDA, the ACGME had a partner with access to GME leaders in patient safety and quality that could make these concepts relatable to residents and fellows on a specialty-specific basis. This partner also could potentially assume a greater role in fostering sustainability and spread among program director associations.

The second partnering organization in developing this new initiative was Project ECHO of the University of New Mexico Health Sciences Center, a

tele-mentoring model that uses technology to share successful practices through case-based learning and monitoring of national and international outcomes.^{10,11}

Project ECHO has demonstrated that strong bonds form among participants of various ECHO ventures and are key to Project ECHO's success. Project ECHO noted that, by committing to meeting on a regular basis, the teleconference sessions became more than an exchange of ideas and expertise. They were virtual gatherings that fostered a sense of community and support—attributes that in turn contributed to sustainability and spread. By 2018, Project ECHO had grown significantly across the United States and internationally since its launch 15 years earlier. During that time, most Project ECHO efforts focused on sharing best practices to manage and treat clinical conditions. The PDPQ initiative would uniquely focus on education and use of the Project ECHO model to enhance the development, implementation, and assessment of educational programming to engage residents and fellows in patient safety and quality improvement.

Recruitment of Initial Specialties

In December 2018, the partnering organizations developed and disseminated an invitation to program director associations and their associated specialty societies to apply to join the PDPQ Educators Network. The application included a social contract outlining the expectation for program director associations and specialty societies to support, sustain, and grow the initial efforts of this network at the specialty level.

Each applicant organization was asked to nominate a leader in patient safety and quality improvement within their specialty. This individual would participate as a member of the design team to develop a distance learning course for program directors and designated faculty, participate in the initial pilot of the course as a presenter and facilitator, and lead efforts to sustain and build upon the initial work within that specialty. Organizations were also asked to nominate a second individual who was familiar with operational aspects of launching educational initiatives for the program director association or their relevant specialty society.

Seven program director associations applied in response to OPDA's invitation. Recognizing that the initial infrastructure of the network could not support all 7 specialties at once, the partnering organizations engaged 4 reviewers external to ACGME and OPDA to assess and prioritize the applications. Neurological surgery, emergency medicine, and internal medicine

were selected as the first specialty participants in the network.

Structure for Planning and Oversight

Early in the initiative, the partnering organizations established 3 levels of oversight: an Executive Team, a Core Team, and a Specialty Advisory Council. The Executive Team, comprising leaders from ACGME and Project ECHO, met weekly to develop an aim statement and to draft and continually update a working project plan. This team was responsible for creating and facilitating agendas for the Core Team and Specialty Advisory Council, coordinating communications, and maintaining a repository of all finalized documents and other materials. The Executive Team was also responsible for maintaining contact with leadership of the ACGME, OPDA, and Project ECHO, as well as other key stakeholders to ensure alignment with other work of these organizations and explore options for sustainability and spread.

The Core Team comprised members of the Executive Team, co-leads from each of the specialties, and additional faculty contributing interprofessional perspective and expertise in patient safety and quality improvement education and assessment. One of the first tasks of this team was to conduct a literature review of articles addressing patient safety and quality improvement education of residents, fellows, and faculty members. Building on that background, the team met regularly to develop and prioritize goal statements and learning objectives for program directors and other GME leaders, as well as design a conceptual model for the network launch. This team also developed a course outline and content for a structured component to be delivered during the initial phase of the network and actively participated in its implementation and evaluation.

The Specialty Advisory Council, comprising representatives from specialties not selected during the first round, closely followed progress of initial pilot efforts in anticipation of joining the network in a future round. In doing so, they provided the Executive Team with advice and guidance on effective strategies to create, grow, and sustain this national learning network.

Goals, Conceptual Framework, and Initial Development and Piloting

As noted in the aim approved by the ACGME Board of Directors, the PDPQ Educators Network sought to develop, test, and implement distance learning-based faculty development activities that would inform and support program directors, associate program directors, and faculty members as they mentor and guide

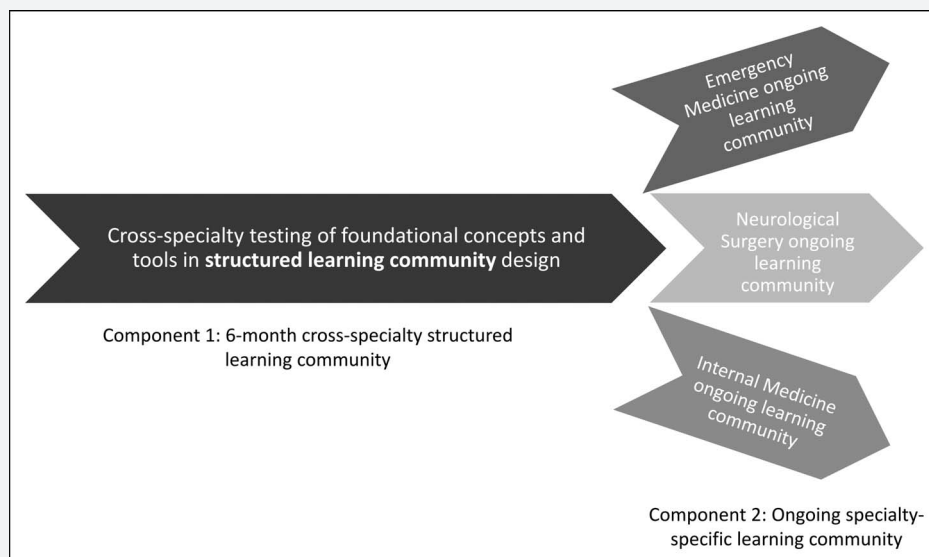


FIGURE 2

Program Directors Patient Safety and Quality Educators Network Conceptual Framework

residents and fellows in understanding and addressing patient safety and health care quality. A conceptual framework with 2 components emerged (FIGURE 2):

1. A structured 6-month series of weekly video conference sessions designed to introduce teams of participants to concepts key to improving education in quality and safety in the areas of: (1) stakeholder engagement, (2) developing a program for longitudinal learning, (3) engaging faculty support, and (4) learner assessment and program evaluation.
2. A separate “ECHO” supported by the relevant OPDA program director association or associated specialty society to build a community for participants who complete the first component to continually convene to share and problem-solve as they improve resident and fellow education in patient safety and health care quality.

Under the leadership of the specialty-based members of the Core Team, the PDPQ Educators Network recruited 13 specialty-based teams from ACGME-accredited sponsoring institutions across the country to participate in an initial pilot test of the conceptual framework. The teams in turn secured the support of their institutions’ GME leaders and patient safety and quality leaders.

During the initial pilot of the 6-month series that launched on January 7, 2020, and concluded on June 26, 2020, nearly all participants were retained from start to finish. Since this initial pilot, interest in the PDPQ Educators Network continues to grow within both the original and new specialties that joined in

subsequent rounds. During the last several years, 7 specialties have been added, with approximately 100 residency programs participating in the initiative.

Conclusion

In designing the PDPQ Educators Network, the Core Team recognized that many residency and fellowship programs have some form of educational programming to teach patient safety and quality improvement, yet programs vary widely in their approaches to and success with engaging learners in these important areas. Nationally, this continues to be identified in CLER reports as an educational and clinical care gap. This initiative is designed to assist program directors in building on whatever base educational programming they have in place at their clinical sites by equipping them with new ways to think about building program capacity, aligning educational and patient care priorities, deepening experiential learning, assessing learner progress, and holistically evaluating their patient safety and quality educational programs. The program is designed as a collaborative learning network, and nearly all its design and implementation reflects peer-based engagement across multiple ACGME specialties (internal medicine, emergency medicine, and family medicine).

This pilot launched in the first half of 2020 and held together throughout the most uncertain and difficult times of the COVID-19 pandemic. This continuity demonstrates the value of forming a community of learning. The Core Team is currently analyzing the impact of PDPQ on participating faculty and their institutions and educational programs. These analyses

will be detailed in future publications; however, the continued investment of the partnering organizations, program director associations, and specialty societies provides early evidence that learning communities such as these are promising new models that can enhance education and catalyze change.

Of note, while the PDPQ pilot focused on patient safety and quality, it potentially provides the community of GME program director associations and their specialty societies with a model that could be replicated with other topics for which there are gaps in educational programming and a need for rapid peer-based learning to address these gaps.

In summary, the preliminary experience of the PDPQ Educators Network demonstrated new ways with which to approach several challenges at once by addressing the needs of GME residencies and fellowships to enhance educational programming, expanding faculty capacity, accelerating and deepening resident and fellow learning, and meeting the CLEs' needs to improve safety and quality in patient care. This experience also has the potential to achieve a long-term goal of inspiring future physicians through experiences that engage them in systems-level thinking and practice to optimize patient safety and health care quality, such that they carry patient safety and quality improvement knowledge, skills, and behaviors into their clinical practice throughout their careers.

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