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Graduate Medical Education as a Lever for Collaborative Change: One Institution's Experience with a Campuswide Patient Safety Initiative

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Background: The 2013 closure of a public hospital in Baton Rouge, LA transformed graduate medical education (GME) at Our Lady of the Lake Regional Medical Center (OLOL). Administrators were tasked with incorporating residents into patient safety and quality improvement initiatives to fulfill regulatory obligations. This report outlines our experiences as we built these patient safety and quality improvement initiatives in a rapidly expanding independent academic medical center.

Methods: We joined the Alliance of Independent Academic Medical Centers (AIAMC) to meet and learn from national peers. To fulfill the scholarly activity requirement of the AIAMC's National Initiative IV, we formed a multidisciplinary team to develop a patient safety education project. Prioritized monthly team meetings allowed for project successes to be celebrated and circulated within the organization.

Results: The public-private partnership that more than quadrupled the historic size of GME at OLOL has, in the past 2 years, led to the development of an interdisciplinary team. This team has expanded to accommodate residency program leadership from across the campus. Our National Initiative IV project won a national award and inspired several follow-up initiatives. In addition, this work led to the formation of a Patient Safety and Clinical Quality Improvement fellowship that matched its first fellow in 2015.

Conclusion: Through the commitment and support of hospital and medical education leaders, as well as a focus on promoting cultural change through scholarly activity, we were able to greatly expand patient safety and quality improvement efforts in our institution.

Keywords: *Education–medical–graduate, health services research, quality improvement, quality of health care*

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INTRODUCTION

In early 2013, the historic public hospital Earl K. Long Medical Center in Baton Rouge, LA was closed. Baton Rouge has a population of approximately 230,000, with approximately 24.0% of residents living below the poverty level.[1] The closure of the state-run hospital that served a significant portion of the indigent population had tremendous implications for the city and its people. In addition to the displacement of patients and healthcare providers, the hospital's sponsored residency programs from Louisiana State University Health Sciences Center needed to find a new permanent home. Our Lady of the Lake Regional Medical Center (OLOL), a member of the Franciscan Missionaries of Our Lady Health System and the largest hospital in the state, became that home through a unique public-private partnership with the state. OLOL is an 800-bed hospital with approximately 480 emergency department visits per day. Currently, 18.2% of patients seen at OLOL are indigent. Prior to the transition in the 2010-2011 academic year, OLOL had a historic average census of 36 residents per month. With the transition, OLOL expanded graduate medical education

(GME) and now serves as a clinical teaching site for 24 residency programs and fellowships. Additionally, the number of resident trainees increased from an average of 73 to 185 residents. OLOL is now a major academic partner of Louisiana State University School of Medicine and a participating site for Tulane University School of Medicine.

While providing high-quality healthcare to those most in need has been part of the hospital's mission since its inception, becoming an independent academic medical center brought patient safety and quality improvement considerations to the forefront. The Accreditation Council for Graduate Medical Education (ACGME) requires that, during their training, residents engage in systems-based practice and practice-based learning and improvement experiences that involve teaching and evaluating quality improvement and patient safety. For OLOL, this requirement meant building a structure and culture that promote, monitor, and maintain safe care provided by learners. In addition, the ACGME requires that accredited academic institutions participate in the Clinical Learning Environment Review (CLER) program. As part of the CLER program, institutions undergo regular site visits to examine how they integrate residents into the institution's quality improvement and patient safety programs (eg, error reporting), ensure oversight of transitions of care, oversee duty hours, maintain policies of supervision, and monitor professionalism.[2] These changes require academic medical centers such as OLOL to reexamine their patient safety and quality improvement curricula and ensure that residents are engaged in the hospitals' patient safety and quality improvement programs.

Being a burgeoning academic medical center has afforded OLOL and its residency programs the unique opportunity to build quality improvement and patient safety curricula from the ground up. While the increased emphasis on patient safety and quality improvement is consistent with the hospital's ongoing mission to improve the quality of patient care, the effort highlighted a need for collegial support and collaboration. This report (1) outlines how one independent academic medical center addressed the changes precipitated by the ACGME and CLER; (2) describes the process of involving and integrating faculty, residents, and the C-suite in growing hospital patient safety and quality improvement initiatives; and (3) details the challenges and successes involved in building a quality improvement and patient safety initiative in a rapidly expanding independent academic medical center.

FINDING PEERS

At the time of the initial collaboration, OLOL had multiple ongoing patient safety and quality improvement initiatives, while the residency programs were independently testing and implementing various quality improvement curricula. GME leaders sought organizational peers who were familiar with the unique challenges faced by independent academic medical centers. In that spirit, OLOL joined the Alliance of Independent Academic Medical Centers (AIAMC) and was accepted to participate in the National Initiative IV: Achieving Mastery of CLER. Through semiannual conferences, monthly conference calls, and networks developed during the initiative, the GME team at OLOL was able to formulate ways to improve patient safety education.

A SCHOLARLY FOCUS ON QUALITY IMPROVEMENT

To support the growing quality improvement activity by nurses and physicians within the hospital and the residency programs when OLOL joined the AIAMC, GME leadership relied on doctoral-trained research directors. The tasks of the research directors (embedded within and across residency programs) were to help structure research and quality improvement projects and to aid in regulatory obligations (ie, institutional review board and project feasibility considerations). As staff physicians and residents began to work with the research directors, they developed a better understanding of critical literature review, study design (including the incorporation of reliable and valid outcome measures), regulatory obligations, and publication standards. Evidence for the positive impact of this support is that faculty and resident manuscripts were increasingly accepted for publication (Figure 1). GME-related quality improvement initiatives began to incorporate increasingly complex methodology, resulting in more evidence-based practice improvements. Staff physicians and residents were reinforced by seeing that their work was improving safety and patient outcomes and they were being recognized for approaching this work in a scholarly way. The improved focus on scholarly work at our academic center provided an important backdrop for our National Initiative IV project.

FORMING THE RIGHT TEAM: INTEGRATING FACULTY, RESIDENTS, AND THE C-SUITE IN HOSPITAL PATIENT SAFETY INITIATIVES

One of the most significant positive impacts of our involvement in the National Initiative IV resulted from the requirement for scholarly activity. To meet the requirement, we formed a multidisciplinary team that included residents and faculty from the surgery, pediatrics, psychiatry, internal medicine, and emergency medicine residency programs. The workgroup, called Scholars in Quality, also included

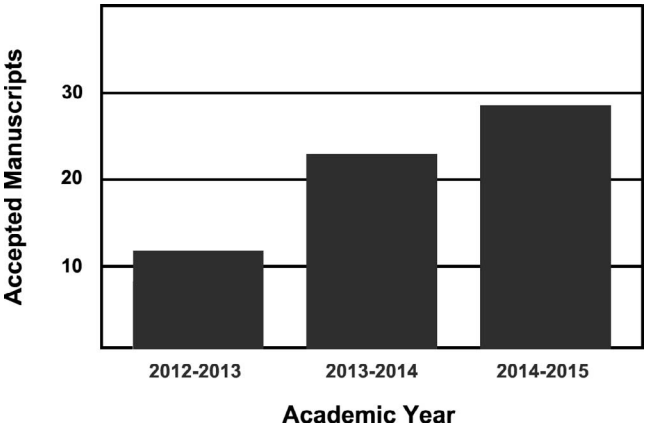

Figure 1. Number of manuscripts authored by residents from the emergency medicine, pediatrics, and psychiatry residency programs that were accepted by peer-reviewed publications during the academic years 2012-2013, 2013-2014, and 2014-2015.

members of the C-suite and research directors. This effort ultimately led to testing a text-reminder system for patient safety rounds as a campuswide research project. First, the associate medical director of patient safety and chief residents from the pediatric and internal medicine residency programs developed a demonstration video on how to lead patient safety rounds. The faculty development video was distributed to all participating faculty. After initiation of the text-reminder system, weekly text messages were sent to all participating faculty. The text messages included prompts to facilitate patient safety discussions. These prompts included (1) "Did anything happen today that resulted in harm or could have resulted in harm to your patient?" (2) "Was this a system error, a process error, or a human error?" (3) "Is this a solvable challenge, and if so, what are the appropriate reporting mechanisms?" Faculty used these text reminders as an opportunity to discuss, identify, and report significant patient safety issues. When these issues were reported, reports were sent to the appropriate personnel. Once the patient safety issue was addressed, faculty members received follow-up from a member of the research team, informing them that the error had been reported and explaining how it had been addressed.

The workgroup met monthly to discuss progress, and these meetings provided a forum for residents and faculty members to engage in discussions about research, patient safety, and quality improvement initiatives across residency programs. During these meetings, our current project developed, and each microsuccess improved buy-in from faculty and residents. Program directors from other residency programs began to ask to get involved—the word was getting out! Initiatives developed by the Scholars in Quality workgroup were championed by the designated institutional official, and successes were disseminated throughout the hospital system, providing additional reinforcement for involvement and momentum for change. These dissemination efforts also provided a platform to share the importance of patient safety and quality improvement in our hospital system, further educating residents and faculty.

CHALLENGES, SUCCESSES, AND LESSONS LEARNED

One of the greatest challenges was obtaining buy-in from our faculty and residents to participate in quality improvement and patient safety initiatives. The prevailing sentiment was that they were busy enough on their clinical rotations and had little time to incorporate additional activities into their daily schedules. Our first mission, then, was deciding how best to change the culture so all parties felt it was their job to integrate quality improvement and patient safety into their daily duties and that doing so would not be burdensome. Consequently, we kept our sights and our project small and focused. Through participation in the project, faculty and residents saw that incorporating patient safety discussions during rounds (as a result of faculty development and the text-reminder system) generated productive conversations and, at times, pinpointed patient safety issues with significant potential for harm.

One example of the impact of our text-reminder system was the resolution of malfunctioning equipment in the emergency department. The faculty reported the following:

> Had patient safety rounds yesterday in the [emergency department]. We identified a patient safety risk. The laryngoscope blades that are in the airway boxes malfunction. When pressure is applied to them, the light goes out. We had a patient that needed to be intubated, and every time that we attempted [to intubate], the light on the blade would stop working. The patient had to be bagged between attempts, and after trying 3 different blades, I intubated the patient with the malfunctioning blade and the light from the otoscope on the wall. Then, later in the shift, we had the same thing occur with a trauma patient who we successfully intubated with the [GlideScope].

This instrument failure was reported to appropriate channels, and the malfunctioning blades were rapidly replaced with blades from a new manufacturer. Instances such as these assuaged initial buy-in concerns. In addition, the feedback loop between hospital quality leaders and the on-the-ground physician educators and trainees was improved, and physicians were able to experience how reporting patient safety issues had a meaningful impact on their practice.

We learned that structuring quality improvement projects as scholarly activity was successful because such a structure provided a framework and background that had not previously been incorporated into many of the quality improvement projects at the institution. In our project, we learned that physician faculty members were very interested in additional faculty development opportunities involving quality improvement and patient safety, and we have begun to explore incorporating those opportunities. Successes that resulted from participating in this initiative and from our project included winning a national education innovation award for our work, developing a Patient Safety and Clinical Quality Improvement fellowship that matched its first fellow for the 2015 academic year, expanding the Scholars in Quality workgroup, and increasing involvement in quality improvement initiatives throughout our residency programs. Figures 2 and 3 illustrate the growth in quality improvement initiatives for the emergency medicine, pediatrics, and psychiatry residency programs.

Another critically important outcome of creating this workgroup was providing hospital and residency program

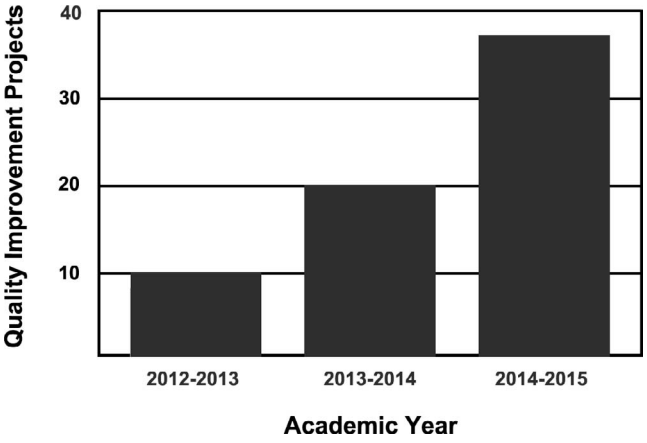

Figure 2. Number of quality improvement projects involving faculty and residents from the emergency medicine, pediatrics, and psychiatry residency programs during the academic years 2012-2013, 2013-2014, and 2014-2015.

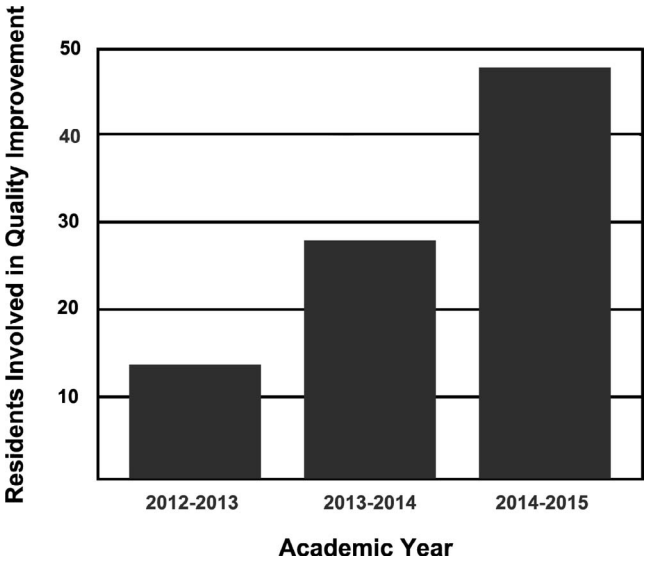

Figure 3. Number of residents from the emergency medicine, pediatrics, and psychiatry residency programs who were involved in quality improvement projects during the academic years 2012-2013, 2013-2014, and 2014-2015.

leaders an opportunity to focus on one common patient-centered goal during the ongoing integration of 2 cultures, as they weathered the disruption of one hospital's closing and another hospital's rapid academic growth.

CONCLUSION

The relationships between public and private healthcare entities are changing, and although these alignments are primarily oriented toward healthcare payment structures and service delivery, they can also create unexpected opportunities and challenges for medical education across the continuum. In addition, efforts to accommodate new accreditation expectations of undergraduate medical education and GME within healthcare settings (eg, the ACGME focus on the clinical learning environment) can create a context for purposeful organizational change within hospitals (eg, focused commitments to improve transitions in care). We were able to capitalize on the convergence of these 2 forces in our work as part of the AIAMC National Initiative IV. We propose that independent academic centers and traditional academic centers undergoing transformations in their approach to service and education demands seek opportunities that purposefully thread together common patient-centered hospital and educational goals. We attribute our success to the commitment of hospital and medical education leaders as well as our workgroup's focus on promoting cultural change through scholarly activity. This interdisciplinary approach has proven invaluable, and we recommend its incorporation in other academic centers engaged in meaningful educational change.

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