

Empowering Rehabilitation Medicine Residents to Transform Healthcare with Quality Improvement and Patient Safety Curriculum

As those of us passionate about quality improvement work know all too well, there is a sense of urgency for system improvements in both the way in which we deliver healthcare to our patients and how we educate healthcare professionals to work effectively in a complex environment. The Association of American Medical College's (AAMC) recent Integrating Quality (IQ) conference in Chicago, which I attended as a resident member of the IQ Steering Committee, offered more than just a glimmer of hope. Esteemed speakers provided transparent data hoping that others may learn from the successes and failures of their academic medical centers. Students, residents, and young faculty from various healthcare disciplines presented creative innovations in education, quality, and safety with evidence of both small and large successes of their initiatives. Although curricular change can be an uphill battle, it was remarkable to not feel so alone on this journey.

Physical medicine and rehabilitation (PM&R) residents at Thomas Jefferson University have been exposed to an augmented curriculum regarding patient safety and quality improvement. As described previously,¹ a curriculum addressing quality improvement and patient safety was launched in January 2011 after an administered needs assessment survey demonstrated many areas for targeted improvement in resident education. After only one year of small, incremental changes, repeat survey of the residents demonstrated a startling increase in a number of areas: confidence in setting up and conducting quality improvement projects; improvements in more important issues communicated at shift change; and an increase in the number of residents who felt they could identify a near miss event (Table 1).

Table 1. Quality and Safety Curriculum Needs Assessment Survey and Resident Responses

Resident Responses	Initial Needs Assessment Survey 2011	Survey After Changes in Patient Safety and Quality Improvement Curriculum 2012
Residents <i>strongly agree</i> that they are confident in setting up and conducting a quality improvement project	36%	91%
Residents felt that important issues were communicated during a shift change	61%	86%
Residents felt that they could identify a near miss event	59%	91%

Based on the 2012 survey data, further opportunities for improvement were identified. For example, although handoff communication seemed to improve, it remains an area in which further improvement was desired such that important issues are *always* communicated. Thus, the handoff workshop was redesigned in a team-based learning format to engage residents in a more interactive session. This workshop style was adapted from a presentation I participated in as a member in the AAMC's Organization of Resident Representatives. Team-based learning has learners complete a pre-reading assignment and work individually to answer a short quiz on the topic. Next, small teams are formed of 3-4 learners to review quiz questions and develop consensus on the answers. Afterwards, the instructor goes over the quiz and reviews in detail any topic which less than about 80% of participants answered correctly. Finally, a group application exercise is done to practice the new skills learned. This workshop design eliminates redundant review of material in which students had already achieved mastery and instead focuses in depth on areas of

deficiency followed by reinforcement of concepts through immediate application. Evaluations from the session included qualitative comments such as "I liked working in teams", "comprehensive", "very helpful", and "interactive... provided diverse methods of learning." There also was a resident suggestion to create a rehabilitation-specific handoff mnemonic like those created in other disciplines, such as PEDIATRIC for pediatric resident handoffs.²

The quality improvement and patient safety curriculum has also evolved as the Accreditation Council for Graduation Medical Education (ACGME) milestones are nearing implementation in PM&R residency programs. Recently, the author and the assistant program director worked on a pilot project with resident-led quality improvement projects. Residents were given an opportunity to determine an area of need and form teams to develop and implement improvement projects. Going forward, this will be fully integrated as a mandatory component of our curriculum so that residents are able to plan, implement, and study an improvement.

Ultimately, it is critical that we all learn from best practices in quality improvement curricula. Teaching methodology needs to evolve from the traditional lecture-based format to accommodate the interactive nature of this material. Also, interprofessional learning needs to be emphasized so we can learn to more effectively work in teams.

The hidden curriculum (that which is communicated informally through observing behaviors and practices) can be

a significant barrier to cultural change in an institution. Beyond educating trainees, it is crucial that faculty adopt this vocabulary and model safety culture, so that the hidden curriculum at teaching institutions begins to reinforce rather than undermine the teaching of the next generation of physicians in a way that empowers them to provide safer, higher quality care. The resources and personnel required to repair and transform healthcare exist within the system; we only need to nurture and support their development and use. ■

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REFERENCES

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