A Team-Based Approach To A Multidimensional Quality Improvement Curriculum Using IHI Open School

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ABSTRACT

The challenge for most Family Medicine Residency faculty is juggling time between seeing patients, teaching residents, and evidenced-based medical care. This can feel like an overwhelming task to get through the expectations of the ACGME, CLER, and academic requirements. The expectations become more complicated with updates like Quality Improvement. QI has become a growing movement in healthcare with its new paradigm as an applied science backed by research with its own vocabulary and teaching methodology. Most Family Medicine Residency educators do not have time to, nor the formal QI education to develop and teach a sustainable, meaningful program.

In a time of limited resources it is specialties like Quality Improvement. By using an interdisciplinary approach, residents can see time, money, and interest in the team approach that is encouraged in most hospital and clinic settings. With formal QI education can develop and teach a curriculum at a fraction of the cost of an full-time faculty and 1 year of faculty time and energy. A Faculty Champion with formal QI education is crucial to the success of this prototype. The Faculty Champion acts as an Executive Team leader, helping to organize and develop the program while being free to attend to other duties. The IHI Open School is dedicated to the curriculum’s creation and maintenance, ultimately removing the residency’s responsibilities.

We developed at ISU/FMR was two-fold. One focus was to create a multidimensional QI curriculum led by an RN and faculty champion, both of whom are formally trained in QI. The second was to enhance learner engagement and knowledge in QI methodology as they apply it.

AIM STATEMENT

To instill QI methodologies that will allow Family medicine residents to positively and continuously impact the health care delivery processes throughout their careers.

RESULTS: SURVEY DATA

GLOBAL GOAL

To identify QI methodologies that will allow Family Medicine residents to positively and continuously impact the health care delivery processes throughout their careers.

AIM STATEMENT

By October 1, 2018 the QI Team will create a robust, sustainable QI curriculum, partnering with IHI Open School, by utilizing non-physician faculty to facilitate a multidimensional perspective that will increase knowledge, application, and engagement of the QI process by 2016.

RESULTS: ENGAGEMENT DATA

BACKGROUND

- As FMR educators, we have a duty and an obligation to produce physicians who are engaged and competent in QI methodology. Physicians who will carry this knowledge into their future practices will improve patient outcomes, aligning with the American Board of Internal Medicine’s (ABIM) Core Competency of Quality and Safety. As board-certified Family Medicine Residents, we are expected to complete the QI requirements in PGY 2-3. At present, ISU/FMR faculty do not have the time to teach QI to residents, yet there are QI related issues and a lack of formal QI education for faculty makes it difficult for them to construct meaningful or sustainable programs. To do this in a time efficient and cost-effective way, we need to think "outside the box" of how to create and teach QI programs. Also necessary is to utilize existing, well-supported tools to do so, such as IHI Open School. Measurable goals will apply for both educators and other non-physician educators to remove a burden on the residency's responsibilities.

METHODS

- Hired RN into dedicated QI position
- Created multidisciplinary QI team to include R.N. and faculty physician
- Team trained formal IHI Open School training in QI methodology
- Based on resident evaluations over two years, the QI Team progressively redesigned the learning environment to be interactive, multi-modal, and longitudinal curriculum.
- We incorporated IHI Open School as mandatory in the PGY-1 year to initiate a foundation promoting knowledge and utilization of QI methodology in resident led projects.
- PGY-1 residents receive protected time for Open School
- PGY-2/3 residents receive monthly didactic designed for multiple learning and teaching modalities
- PGY-2/3 residents receive monthly protected time to work on QI projects
- ISU-trained IHI Open School coaches are available to assist QI teams
- Longitudinal program promotes the development of future, sustainable QI projects
- Assessment tools (resident surveys and measures of engagement) were built to measure resident knowledge, application and engagement in QI processes.

MEASUREMENT TOOLS

- Sample engagement tool staff member trained on use of tool. Scales data shown in Figure 1.
- Sample Engagement Survey consisting of six questions using a rating system, was developed to assess knowledge, comfort and application of QI methodology.

CONCLUSIONS

Results:
- We are on the right track to reaching our global goal. IHI Open School modules have been integrated into IHI’s foundational series for our first year residents to build upon.
- The engagement data is collected every 10 minutes, over a 10 minute period. The results show an increase overtime in eye contact and a decrease in cell phone use. Similar results were found across all engagement criteria.
- Linking engagement to residents’ need for protected time to work together on QI projects was instrumental in active engagement.
- QI trained IHI Open School provides the level of expertise needed for residents to fully understand the application of QI in their future practice.

Lessons learned:
- Formal QI education of curricular/learners is crucial to create accountability.
- Make it meaningful. Meaningful = Engagement.
- Know what you are measuring and how to measure it.
- A QI curriculum requires dedicated faculty and dedicated protected resident time.
- Access and tools often, adjusting immediately.

Next steps:
- Incorporate faculty development and engagement
- Expand on curriculum topics to include incident reports, RCAs, basic medication safety measures, appropriate sharing positions...
- Spread it throughout the university
- Promote sustainability of the curriculum by making it applicable, efficient, meaningful
- Graduate family physician with demonstration tools in QI methodologies to use in their future health care communities.

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