Developing and implementing a Quality Improvement curriculum: Engaging residents and recruiting faculty

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Background

Quality Improvement (QI) is increasing becoming an important part of resident education; participation in QI Projects is a requirement of both the ACGME and the RRC, and the Clinical Environment learning Review (CLER) specifically evaluates resident education in Quality Improvement. It is also part of Maintenance of Certification. Formal fellowships in Quality Improvement exist, and have positive effects on the quality learning environment. Quality Improvement programs can lead to demonstrable improvement in outcomes for targeted, specific patient-related interventions. Longitudinal curricula have been shown to improve resident confidence and performance. Despite this, there are few guidelines for QI-specific education.

Objective

Create a sustainable QI curriculum that is scalable, meets regulatory requirements, and has high stakeholder engagement and satisfaction.

Methods

Using theories of adult learning, established literature, stakeholder input, and ACGME guidelines, a year-long Quality Improvement Curriculum was put into place. The curriculum included formal didactic lectures on statistics and principles, group problem-solving exercises, individual projects, and a Mini-symposium with nationally-recognized speakers. Residents were monitored for both qualitative and quantitative participation in the program. Obtained feedback from faculty and residents: key feedback included that QI projects need to have built-in multigeneration involvement.

Table 1. Key components of andragogy

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Resident-driven independent and group projects foster engagement

Representative resident-driven projects

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Conclusions

We created a branded, multimodality curriculum that flattens the hierarchical paradigm of other educational work, and that incorporates didactic content, group and individual projects, journal club, and expert talks.

- QI curricula can be successful in engaging residents and faculty
- Imparting prestige to QI projects encourages participation
- Reinforcement in multiple modalities aligns with adult learning principles
- Program ‘branding’ allows identification of QI curricular activities

Next Steps/Action Items

- QI grant funding
- QI publications
- National presentations
- Attending support

Acknowledgements

Thank you to the Plastic Surgery faculty who supported the development of this program: Joseph Losee, MD, Vu Nguyen, MD, J. Peter Rubin, MD, Dawn Wang, MD. Thank you to the residents who participated in the Mini-Symposium: Brodie Parent, MD, Stephanie Dreifuss Farber, MD, Francesco Ergo, MD, Chelsey Johnson, MD, Elizabeth Moroni, MD, David Turer, MD
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Table 2. Resident engagement.

- Longitudinal as well as individual projects
- Resident showcase at Quality Minisymposium
- Annual QI award at Research Day

Table 3. Multimodality programming

- Interactive Didactics + Creation of textbook reinforcement
- Quality Minisymposium
- Research
- QI ‘morbidity and mortality’ conference
- Journal Club

Representative resident-driven projects

Resident-driven independent and group projects foster engagement

Collaborative and multigeneration projects ensure stakeholder input and completion

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Resident-driven independent and group projects foster engagement

Resident showcase at Minisymposium highlights resident-driven work

Collaborative and multigenerational projects ensure stakeholder input and completion

Next Steps/Action Items

- Incorporate QI principles in formal exams
- Create formalized QI curricula throughout residency

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