



Teaching Quality Improvement Through a Book Club

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Abstract

Introduction: Quality Improvement projects are an important part of residency education in the United States and are required for accreditation by the Accreditation Council for Graduate Medical Education. Participation in standard chart-based quality improvement had failed to generate excitement among residents in our program. The objective of our innovation was to inspire interest in quality improvement among our residents.

Methods: Our residency program instituted a book discussion group. Attendance and participation of attendees was recorded, and residents were sent a follow-up survey one month after the activity to gauge their impressions.

Results: Out of 16 residents in the program, 12 attended the discussion group, and all attendees participated in the discussion. The follow-up survey revealed that 10/11 (91%) of respondents had read at least part of the book and 11/11 (100%) wanted to have another book discussion group in the upcoming year.

Conclusion: We believe that the use of a book discussion group can be a novel, inspiring strategy to teach quality improvement in a residency program.

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Introduction

Quality improvement (QI) projects are an important part of residency education and are required for training program accreditation by the Accreditation Council for Graduate Medical Education (ACGME).¹ Furthermore, the maintenance of certification programs for practicing physicians in both medicine and pediatrics mandates QI projects. To meet these requirements, residency programs in the United States typically engage in chart reviews that highlight deficiencies of care.²

Quality improvement and patient safety are addressed in residency programs in a number of ways. Chart-based audits, root-cause analysis, and implementation of checklists in both the inpatient and outpatient settings have been used widely.³ The success of these programs in improving patient care and galvanizing interest in quality and patient safety varies widely.³

A chart-based QI project based on the American Board of Internal Medicine's (ABIM) Practice Improvement Module (PIM) was employed from 2008 to 2009 in

our combined Internal Medicine-Pediatrics Residency Program comprised of 16 residents. In 2009, as part of an annual general program evaluation, residents were asked about their experiences with the PIM. Only 2/13 (15%) respondents reported that they were "excited" about the chart review project.

In response to this lack of excitement with the standard QI teaching method, we developed an educational intervention with the goal of renewing enthusiasm for QI in our training program: a book discussion group. We sought to measure interest and participation in our novel strategy to introduce concepts of QI to our residents. We have found no description of a similar intervention in the peer-reviewed literature. In this piece, we describe our pilot study.

Materials and Methods

All 16 residents and 4 core faculty members were given Atul Gawande's book *The Checklist Manifesto*⁴ and invited to a

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two-hour evening book discussion group in one month's time. Dr. Gawande's book explores the use of checklists to improve quality and safety in a variety of fields (e.g., medicine, construction, aviation). Three residents were assigned to an "expert panel" and committed to reading the book in its entirety and preparing initial comments for the evening discussion session. We directed all participants to key chapters within the book to optimize participation since we anticipated that some residents would find completion of the book challenging given competing time demands.

The evening session was held at a faculty member's home in the winter of 2010, dinner was provided, and significant others were invited to participate in the discussion. During the discussion session, a faculty observer took attendance and observed participation of those present. One month after the discussion, residents were sent a survey by email about their participation in and impressions of the activity. All residents involved in the residency program were eligible and invited to participate in the educational intervention and subsequent survey. Consent for the study was implied by participation in the program.

We have followed interest in QI after the initial intervention by resident engagement in future book discussion groups and involvement in QI projects from 2010-2015.

Ethical Guidelines

The authors declare that the work meets all ethical guidelines, including adherence to all legal requirements in the United States of America.

Results

Out of 16 residents enrolled in the training program, 12 residents (75%) attended the book discussion group. Of the 4 (25%) residents unable to attend, all had competing work-related responsibilities (e.g., on call). Additionally, though not part of the study, 4 faculty (100%) and 5 spouses and significant others representing varied professional backgrounds also attended and contributed to the discussion. All attendees had read at least part of the book and spoke during the discussion. In a post-activity survey distributed to all 16 residents one month later, 10/11 (91%) respondents reported having read at least part of the book, and 11/11 (100%) of respondents wanted to have another book discussion group in the upcoming year.

Since the original evening event, the book discussion group has become a yearly exercise that is rated among the favorite training program activities by residents on the annual general program evaluation. Four additional books have been discussed at similar events. Furthermore, in the five years since the first book discussion group, residents have independently launched 9 clinic-related substantive quality improvement projects addressing such issues as patient health literacy, diabetes, refugee care, clinic efficiency, and the patient-centered medical home. Three of these projects have resulted in peer-reviewed publications.^{5,6,7} Prior to this intervention, there were no independent quality improvement projects outside of the standard curriculum.

Discussion

This pilot project demonstrates resident support for using a book discussion group to convey values of quality improvement. Teaching quality improvement in residency programs can be challenging given competing demands in the curriculum and clinical duties. However, quality improvement and patient safety are increasingly important aspects in patient care. In the United States, the Centers for Medicaid and Medicare Services (CMS) has begun withholding payments for preventable hospital re-admissions for acute myocardial infarction, congestive heart failure, and pneumonia.⁸ Independent groups are scoring physicians on quality and patient safety indicators—and making the results known to the public.⁹ Despite the curricular challenges, given the importance of QI for the practicing physician in the United States and ACGME requirements,¹ training programs must find ways to engage residents in quality and safety discussions and activities.

We believe that a book discussion group held in a faculty member's home and led by residents brought about a change in culture. A strong programmatic culture surrounding QI has been shown to be an important aspect of optimizing the QI educational experiences of residents.¹⁰ Exercises in pure chart abstraction, which was our previous approach to teaching QI, have been shown to be poorly received among learners due to their tedious nature.¹¹ Providing the opportunity to discuss a book among faculty and residents gave shape to shared values and a mission for quality, and placed specific quality exercises—such as a chart review—in a larger context. Prior to the book discussion group, only 15% of our residents were "excited" about QI exercises involving chart review. Subsequently, our book discussion group has become a yearly exercise, with broad support and enthusiasm by residents and faculty alike. Substantive projects led by residents, some involving chart review, have resulted in peer-reviewed publications.^{5,6,7}

There are several limitations to consider. First, this is a pilot project within a single residency program of 16 residents. We cannot generalize these results to larger programs in other countries or among other medical specialties. Furthermore, it is difficult to draw broad conclusions about the impact of a single intervention to affect the culture of an entire residency program. Yet, in our review of the literature, there have been no other similar projects describing this strategy in medical education. This intervention is low-risk, fosters faculty-resident collegiality, and helps shape the culture of quality and patient safety in medical training.

Conclusion

Based on the positive responses from residents, the book discussion group has become a mainstay of our residency program curriculum. We have now discussed four different books since the original program implementation, and residents have embarked on a variety of quality improvement projects of their own accord, leading to peer-reviewed publications. We believe that the initiative was successful because of the novel approach to teaching

quality and the sense of community and shared mission that was fostered among the faculty and residents.

Competing interests

The authors declare that there are no conflicts of interest.

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