Resident education in Quality Improvement: Exploring physician in-training and teaching faculty's comprehension regarding Quality Improvement Processes

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INTRODUCTION

In today's dynamic health care environment with newer developments and continuing financial constraints, an ongoing commitment to Quality Improvement (QI) is essential. For physicians in-training, Accreditation Council for Graduate Medical Education (ACGME) requires all residency programs to incorporate established competencies which focus on improving quality of performance of individuals and systems. Thus, the teaching faculty should be thoroughly familiarized with QI process development and evaluation, so that they can effectively teach residents.

METHODS

- IRB approval was obtained and a survey questionnaire was distributed to residents, fellows & faculty of various departments in the University of Florida, College of Medicine – Jacksonville.
- Comparison was made between two groups; in-training physicians (residents/fellows); and faculty.
- Responses were anonymous.

RESULTS

Eighteen faculty and 33 residents/fellows (R/F) participated in the survey. When queried regarding their familiarity with QI measures within their own specialty (scale of 1-10), 50% of faculty considered themselves very familiar (8-10); 33% moderately familiar (5-7); and 17% unfamiliar (1-4). In contrast, resident responses were 30%, 48% and 21%, respectively (see Table 1). Most frequent involvement of both groups in QI processes was on monthly basis. The Performance Improvement areas in which faculty were most frequently involved were, "work process or care delivery outcomes;" "communications, handoffs, or information flow (CHIF);" and "patient satisfaction." The R/F reported "(CHIF)" as the most frequent, with a tie between "patient satisfaction" and "clinical outcomes (survival, mortality/morbidities)."

Table 1

		Familiarity Scale		
	Years of experience	Very Familiar (8-10)	Moderately Familiar (5-7)	Unfamiliar (1-4)
Residents / Fellows n=33	< 3	5 (15%)	14 (42%)	6 (18%)
	≥ 3	5 (15%)	2 (6%)	1 (3%)
Faculty n=18	< 5	2 (11%)	3 (17%)	0 (0%)
	≥ 5	7 (39%)	3 (17%)	3 (17%)

When asked to enumerate top QI priorities of the institution, "patient satisfaction" was the most frequent response from faculty, while most frequent responses from R/F included "prevention of adverse drug reactions (ADR)," "DVT prophylaxis" and "patient satisfaction." Additional responses by faculty included "error reduction," "prevention of ADR" and "fall prevention." R/F also enumerated "communication," "handoffs", "patient/specimen identification," cost containment," "departmental M&M, "pharmacy check points" and tracking sentinel events, etc.

Suggested Topics for Multidisciplinary Quality Improvement Teams (FADE2)	
Residents / Fellows	Faculty
Identify staff roles	MRSA
Treatment side-effects	Handoffs
Information systems	Fall prevention
Continuity of care	Adverse drug reactions
Turnaround times	
Integration between teams	

Table 2

Thirty-nine percent of faculty and 18% of R/F reported participating in a Root Cause Analysis (RCA), and fewer reported participating in Multi-disciplinary QI teams such as rapid cycle improvement team (FADE2) or a failure mode analysis team (FMEA). However, there was high interest expressed for future participation in such teams with a wide range of suggestions for future topics, some of which are given in Table 2.

Suggested Topics for Future Lectures & Workshops	
Residents / Fellows	Faculty
Goal setting	Institutional QI review
Antibiotic use	Adverse drug reactions
Mass casualty training	Patient satisfaction
Financial outcomes	Mortality
Human error	Patient safety
Shared medical record / information systems	
Handoffs	

Table 3

Regarding continuing educational activity, faculty and R/F reported attending lectures/ workshops both at departmental (27% faculty; 79% R/F) and institutional level (15% faculty; 48% R/F). Some reported attending lectures at national level. Most respondents favored continuation of future QI education at both departmental and institutional levels. Few faculty Suggestions for future topics are given in Table 3.

CONCLUSIONS

- Our results indicate that there is a wide variation among individual faculty and R/F regarding familiarity with QI measures. Senior faculty being more familiar are the best resource for R/F education.
- For best results QI should be taught by proactive faculty thoroughly familiar with its concepts, and as a multidisciplinary and multidimensional process.
- The faculty and R/F were cognizant of a wide list of QI monitors established by the institution, their responses reflected successful "Top-Down" educational efforts by the institution.
- As a "Bottom-Up" educational process, direct R/F participation in QI projects should be further encouraged.
- Both groups favored continuation of QI lectures/workshops at both departmental and institutional level.

REFERENCES

- Leach D. Evaluation of competency: an ACGME perspective. Am J Phy Med Rehabil. 2000;79:487-9.
- Hackbarth AD, McCannon CJ, Berwick D. Interpreting the "Lives Saved" Result of IHI's 100,000 Lives Campaign. Joint Commission Benchmark, September/October 2006, 8(5):1-3,10-11.
- McCannon CJ, Hackbarth AD, Griffin, FA. Miles to go: an introduction to the 5 Million Lives Campaign. Jt Comm J Qual Patient Saf. 2007 Aug;33(8):477-84.

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