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A New Model for Assessing Teaching Quality Improvement to Family Medicine Residents: Does It Work?

Ivy A. Click

East Tennessee State University, click@etsu.edu

Fred Tudiver

East Tennessee State University, tudiverf@etsu.edu

Jeri Ann Basden

East Tennessee State University

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A New Model for Assessing Teaching Quality Improvement to Family Medicine Residents

Does It Work?

Fred Tudiver, Ivy Click, Jeri Ann Basden
Department of Family Medicine
East Tennessee State University

Disclosures

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Quality Improvement (QI) in Family Medicine

- Incorporation of quality improvement (QI) in Family Medicine has increased in importance for three reasons:
 1. QI is a critical component of the Patient Centered Medical Home (PCMH)¹
 2. ACGME competencies include QI methods²
 3. Increased emphasis on pay-for-performance

QI in Family Medicine

- Systematic review of effectiveness of teaching QI³:
 - Standardized measures do not exist
 - Assessment measures:
 - Ogrinc's Quality Improvement Knowledge Application Tool (QIKAT)⁴
 - Pre/post self reported knowledge or efficacy or behavior changes surveys
 - Commitment to Change surveys
 - Chart audits

Objectives

- The purposes of the project were:
 - To develop and implement a formal curriculum and experiential learning process to train FM residents in QI knowledge and skills
 - To objectively assess the transfer of knowledge and skills

Methods

- Pre-post quasi-experimental design
 1. Year 1: Family Medicine faculty trained in QI theory and design
 2. Years 2 & 3: Two groups of second year (PGY2) residents from 3 affiliated residency clinics trained in QI theory and design and conducted QI projects in clinics

QI Training Workshops: *Faculty*

- Seven 1.5 hr workshops
 - Literature searching
 - Critical appraisal
 - Health disparities
 - Rural health promotion
 - Healthy People 2010
 - Cultural competency
 - Health literacy
- Interactive comprehensive QI workshop
- *Faculty QI Training Manual* developed

QI Training Workshop: *Residents*

- Full day QI training seminar
 - Evidence-based medicine
 - Learning to build questions
 - Effective literature searching
 - Critical appraisal
 - Introduction to QI
 - Plan-Do-Study-Act (PDSA)
- Met with “champion” facilitator to plan and discuss potential QI projects
- *Resident Quality Improvement Manual*

Resident QI Projects

- Six weeks after training, faculty met with the residents to help them develop their QI project Action Plan.
- Project faculty and staff met with residents monthly
- Residents shared progress approximately 6 months into the projects

Measures:

Self-Assessed QI Proficiency

- Evaluated resident's comfort level with current skills to develop and implement a QI project
- 9-item Likert 5 point scale
 - Range of possible scores: 9-45
- Residents given self-assessment pre- and post full day QI training didactic sessions

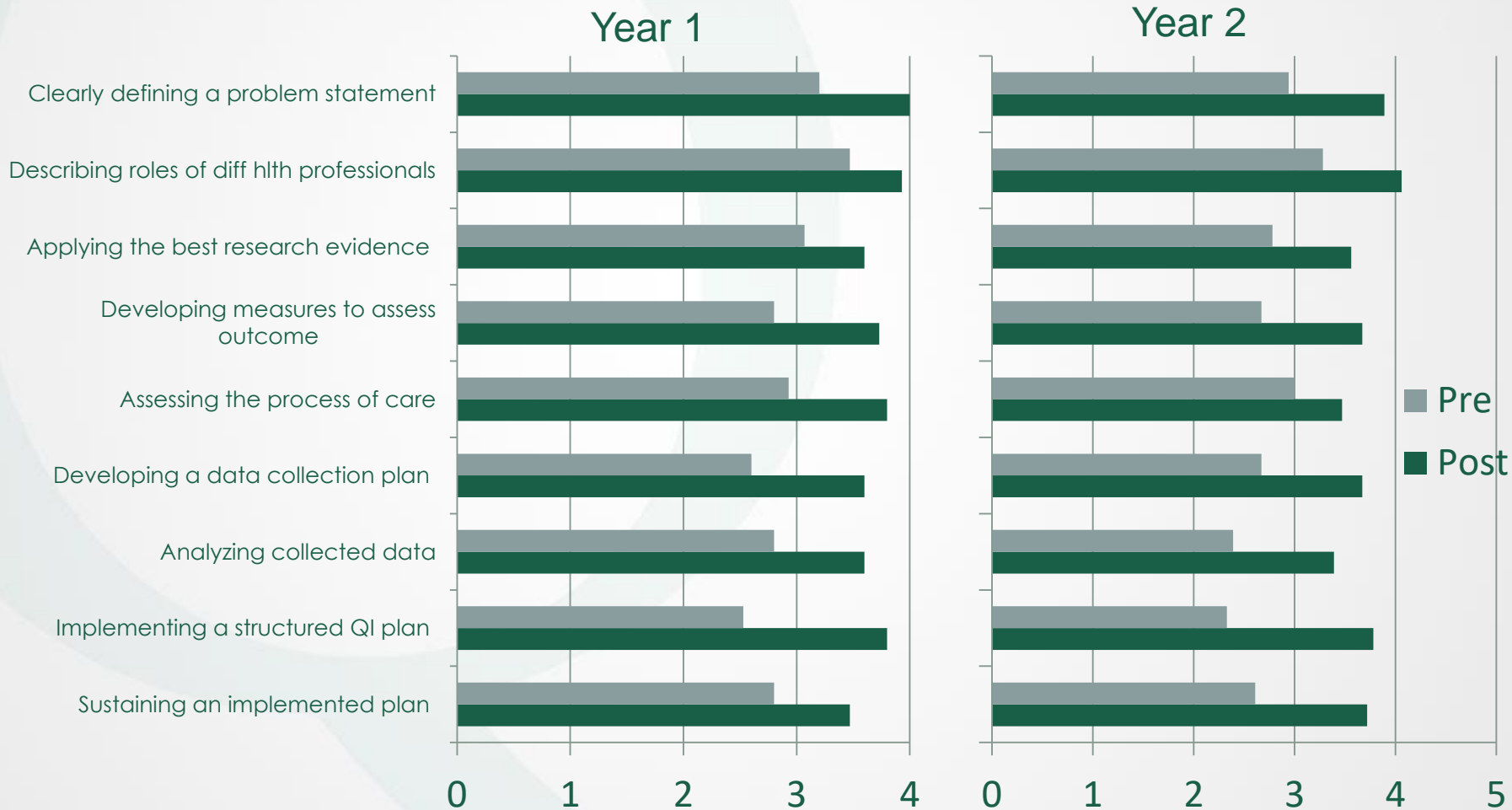
Measures: QIKAT

- Measured the effects of QI project participation on QI knowledge and skills application
- 5 points possible for each of 3 scenarios
 - Range of possible scores: 0-15
- In Year 1, PGY2s completed initial QIKAT 3 months after the QI training workshop; In Year 2, PGY2s completed immediately following workshop*
- Both completed follow-up QIKAT at the time of their project presentations

Results: Resident QI Projects

Year	Location	QI Project
1	Clinic 1	“Pap-ing our way to Quality”- devising interventions to improve documentation and meet goals for screening.
	Clinic 2	“Clinic Time Flow Study”- identifying time lags and devise interventions to create more efficient visits.
	Clinic 3	“Diabetic Blood Pressure Control”- implementing a systematic way to ensure diabetic patients are prescribed appropriate blood pressure medications.
2	Clinic 1	“Resident Feedback” - surveying patients to identify concerns with international residents to improve communication and care in the practice.
	Clinic 2	“Reducing Hospital Bounce-backs”- follow-up with patients to monitor compliance to reduce “bounce-back” visits.
	Clinic 3	“Diabetic Foot Inspections”- implementing a systematic way to ensure proper foot exams are performed on all diabetic patients.

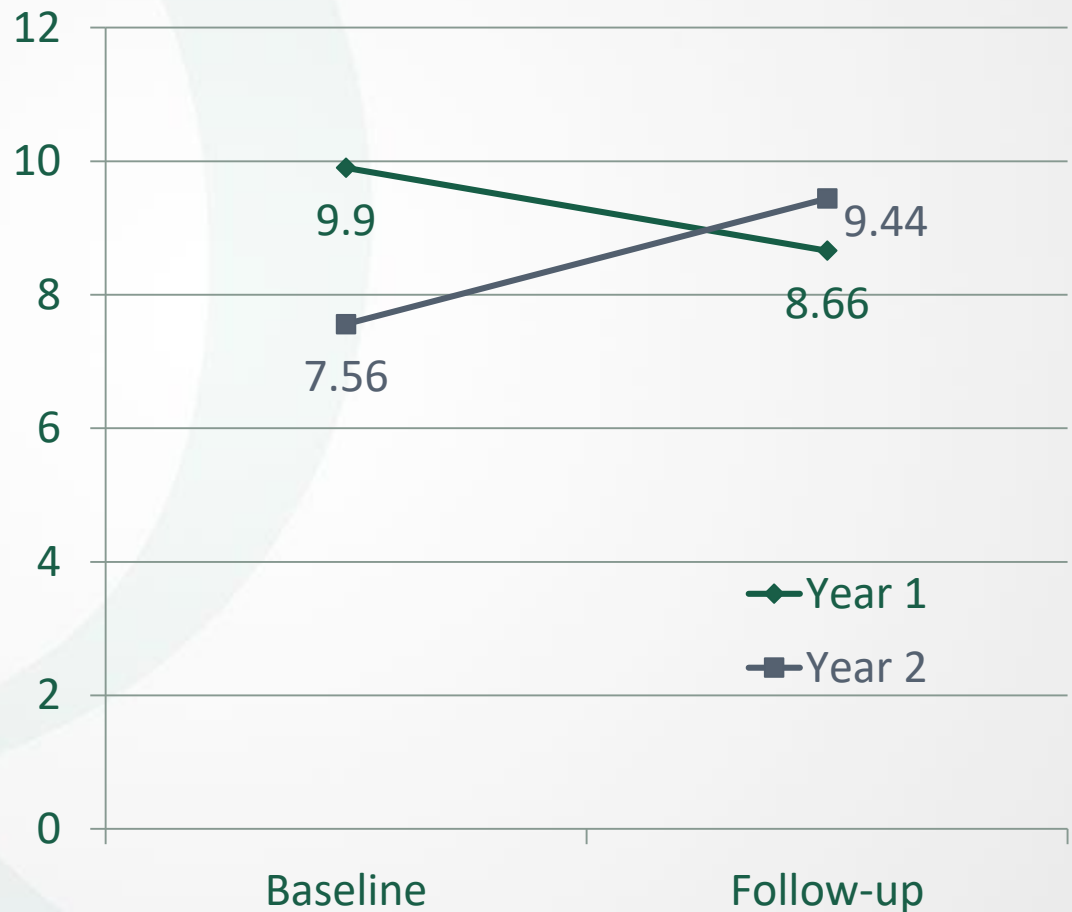
Results: Self-Assessed QI Proficiency



All items $p < .05$

Results: QIKAT

- Paired t-tests for baseline and follow-up scores:
 - Year 1: $p > .05$
 - Year 2: $p = .004$
- Independent t-tests for differences between Years:
 - Baseline: $p < .001$
 - Follow-up: $p > .05$
- Tested for face validity and inter-rater reliability:
 - Baseline: 0.91
 - Follow-up : 0.84



Conclusions

- Self-assessed QI proficiency improved after day-long training workshop.
- QIKAT scores did not improve following QI project participation in residents in Year 1.
- QIKAT scores did improve in residents in Year 2.

Challenges

- Time
- Scheduling
- Obtaining “buy-in”
- Including clinic staff

Future Directions

- Repeat measures after graduation?
- Survey graduates regarding current QI activities
- Incorporating PCMH into QI curriculum

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