

Developing and Assessing a Patient Safety and Quality Improvement Curriculum for Clinical Fellows

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INTRODUCTION

- ACGME Common Program Requirements require patient safety and quality improvement (PSQI) education across the medical education spectrum¹
- Limited data exist on optimizing fellow PSQI training
- Variable backgrounds, short training programs and limited educational time present curriculum design challenges
- As clinical fellows transition from resident to attending, their PSQI educational needs focus on practical skills for independent practice and issues unique to their specialty

Aim Statement

The Intensive PS/QI Seminar, developed by departmental faculty, will provide all Department of Medicine fellows a consistent review of PSQI on an annual basis. By spring of 2017, we will have developed and delivered a seminar to DOM fellows meeting institutional objectives and assessing fellow knowledge.

Project Design and Methods

- The seminar didactics reviewed PSQI foundational topics with application of the material in interdisciplinary small groups (Table 1)
- The curriculum was developed and taught by three general internists with PSQI expertise
- A pre-test was emailed to participants, which included an internally developed multiple-choice PSQI knowledge assessment (SurveyMonkey®, San Mateo, CA) and the Quality Improvement Knowledge Assessment Test (QIKAT-R)²
- After the seminar, fellows completed the PSQI knowledge assessment test, QIKAT-r and seminar evaluation
- Pre- and post- seminar internal PSQI knowledge assessment mean scores were compared using Student's T-test
- Two authors (EF, TC) reviewed the pre- and post- seminar QIKAT-R with an inter-rater reliability of 0.89
- Statistical analysis was performed using Excel (Microsoft®, Redmond, WA).
- This study was reviewed by the Washington University Institutional Review Board and did not meet the definition of human subject research

Summary of Results

Table 1: Patient Safety and Quality Improvement Curriculum Topics, Small Group Activities and Objectives.

	PSQI Curriculum		
	Topics	Small Group	Institutional Objectives
Patient Safety	To Err is Human	Patient case with a missed lung nodule	Define and apply system thinking to day-to-day clinical practice.
	Systems Thinking	Completion of fishbone diagram	
	Just Culture	Discussion Questions	
	Error Reporting		Identify patient safety events or unsafe circumstances that must be reported. They will analyze patient safety events, participate meaningfully in the event review process.
	Peer Support		
Quality Improvement	Donabedian Model	Process Map	Apply fundamental aspects of quality improvement to the care of their patients and will participate in quality improvement activities in their program or their clinical learning environment.
	System of Profound Knowledge	Brainstorm possible solutions	
	QI methodologies	Payoff matrix	
	Hospital and departmental QI metrics		Obtain and analyze specialty-specific data on quality metrics and benchmarks related to their patient populations.
PSQI Application	Hospital and departmental safety initiatives	List top patient safety concerns	State the institutional and relevant national patient safety goals, priorities and strategies and how they interface with daily practice in their field.
	Preventable harm initiatives		Recognize risk and apply risk mitigation strategies in their clinical learning environment at all times to prevent patient safety events.
	PSQI resources		

PSQI, Patient Safety and Quality Improvement; QI Quality Improvement

Table 2: Mean Seminar Evaluations

Seminar Domain	Mean
n=102	
Overall score	4.3
Seminar organization	4.7
Clear objectives	4.6
Small group activities	4.5
Content relevance	4.4

Figure 1: Mean PSQI Assessment Score Pre and Post Seminar.

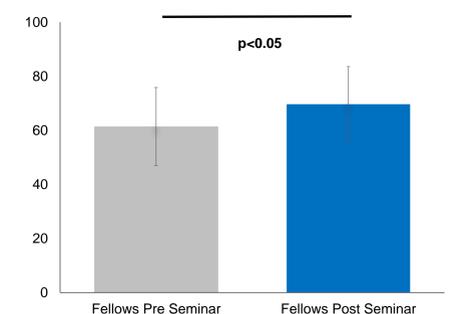
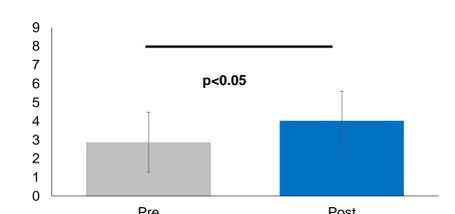


Figure 2: Mean QIKAT-r score Pre and Post seminar.



CONCLUSIONS

- Fellows have a need for PSQI training relevant to their current position and applicable to their future career. The content and format of this seminar was tailored to their unique position between residency and independent practice
- The seminar increased PSQI knowledge as measured by our institution's internal assessment tool and QIKAT-r
- The seminar was well received and evaluated by participating fellows, with generally positive comments

REFERENCES

1. Accreditation Council For Graduate Medical Education. Common Program Requirements. Available at http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRs_2017-07-01.pdf. Last Accessed 5/10/18
2. Singh, MK, Ogrinc, G, Cox KR, et al. The Quality Improvement Knowledge Application Tool Revised (QIKAT-R). Academic Medicine 2014; 89(10): 1386-1391

FUTURE WORK

- Longer term measurements of knowledge retention and practice change remain limited
- Fellow reported outcomes included that they would report more safety events
- Error reports by fellows increased from 3 to 7. Because of the small numbers, we cannot link this increase to our seminar. Future work will focus on further increases in fellow error reports.
- We will continue to offer the seminar and track knowledge and reporting metrics

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