

# Success Stories of Interprofessional Education in Quality and Safety at the Point of Care: *The University of Missouri Experience*

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## Key Characteristics of MU SOM Graduates

- Able to deliver effective patient-centered care
- Honest with high ethical standards
- Knowledgeable in biomedical sciences, EBM, and social/cultural issues
- Critical thinkers; problem-solvers
- Able to communicate
- **Able to collaborate**
- **Committed to improving quality and safety**
- Committed to life-long learning and professional formation

## Interprofessional Patient Safety and QI Learning: Design Principles

- Longitudinal and integrated approach
  - Required elements across courses/years of training
- Interprofessional learning: students *and* faculty
- Involvement top→down (and bottom→up)
- Experiential learning: link to clinical setting
- Partner with the health system
- Evaluate and evolve...a work in progress

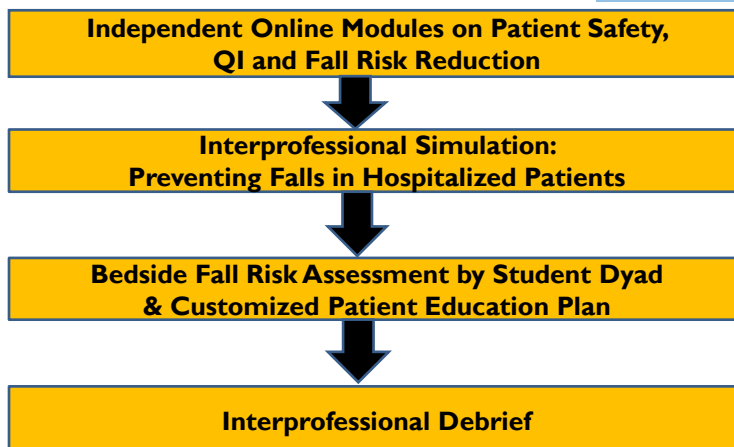


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## The Integrated Interprofessional Patient Safety Curriculum (TIIPS)



### *Retooling for Quality and Safety*



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## Interprofessional Simulation and Bedside Encounter

- Aging/Mobility Simulation
  - Team based—groups of 4-5
  - Sharing expertise
  - 4-5 stations
- Bedside Fall Risk Assessment (2 students)
  - Chart and medication review
  - Environmental observations
  - Customized fall prevention plan



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## Focus: Learning & Patient Care

### Student Learning

1. Knowledge
  - 99% of risk factors reported were correct
2. Improved confidence assessing risk and educating patients
3. Reflection questions
4. Potential interventions:  
Team and institution

### Patient Care

- 93% of patients interviewed reported encounter valuable

**Patient:** *"The students were interested in my well being; they worked as a team and emphasized I might have a deficit when I go home after surgery...they asked me about home, steps, cords, cars, medications... and discussed how to be careful..."*



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## Clerkship Students Focus on Safety



- What went wrong?
- How did this happen?
- What are potential solutions to prevent recurrence?

## M3 Patient Safety Curriculum Results

- **Learning and Patient Care**
  - Improvements in orthopedic order sets
  - Improvements in multi-disciplinary rounding process
- Improvement in student comfort identifying patient safety issues and analyzing issues to find a cause
- Student suggestions more robust than typical reporter



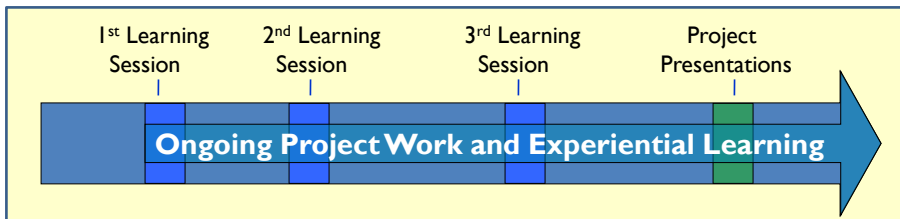
Effectiveness of patient safety training in equipping medical students to recognise safety hazards and propose robust interventions

L W Hall, S D Scott, K R Cox, et al.

*Qual Saf Health Care* 2010 19: 3-8  
doi: 10.1136/qshc.2008.031781

## Achieving Competence Today

- Grew out of RWJF Collaborative in 2004—adapted
- **Goals:**
  - Learn QI principles and basic tools while improving care
  - Effective teams and IP roles
- Principles of learning:
  - Experiential learning in interprofessional teams
  - Faculty, students, and staff collaborative learning



## Achieving Competence Today

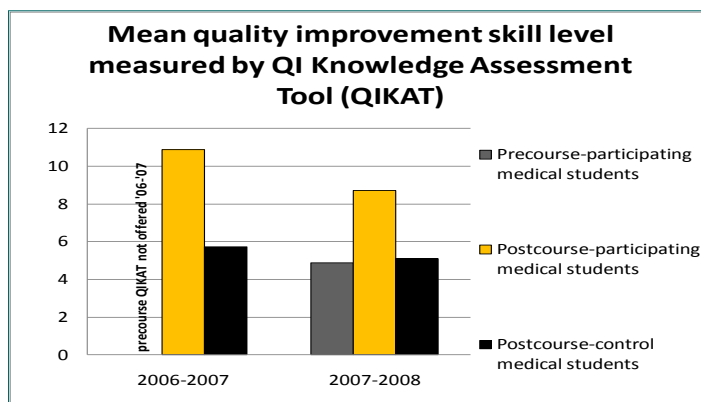
- Create interprofessional improvement teams:
  - Departments/service areas identify learners/faculty
- QI personnel help identify focus for improvement
- Each team focuses on project for service area
  - **Teams:** 6-8 learners, faculty, staff, QI advisor
  - **Faculty:** “new” and experienced
  - **Learners:** 4<sup>th</sup> year med students, residents, pharmacy residents, graduate nursing students
- Interactive learning sessions & didactics (4 months)
  - 12 Contact hours and (bi-)weekly working team meetings
  - Effective teams, QI basics and tools, Health systems and change
  - Final presentations for system leaders: share projects & outcomes
- Improvements in student knowledge (pre vs. post)

## Examples of Improvements

- **Pathology:** Improving tracking system for cytology results
- **Pediatrics:** Improving pre-discharge immunization rates for post-partum women (Tdap and influenza)
- **Family Medicine:**
  - Improving knowledge/use of comfort care pathway
  - Improving patient knowledge of care plan
- **Psychiatry:** Decreasing wait time and duplication of work in symptom evaluation unit.

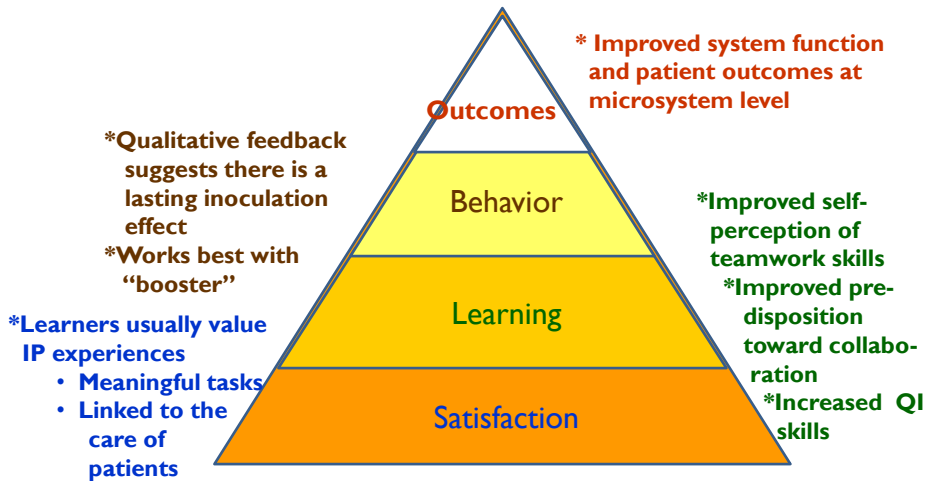
## Learner Outcomes

- Using the QI Knowledge Application Tool
- Significant differences noted in both the pre/post QIKAT scores ( $p < 0.001$ ), and between the ACT participants and matched controls ( $p < 0.0005$ ).





## Evaluation Model – What works in the context of QI/Safety Education at MU?



Kirkpatrick Evaluation Model adapted by Barr, 2000



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## Final Thoughts

- Develop integrated/required opportunities for IPE
  - Pre-clinical → Clinical training → Practice
- Experiential learning for students (and faculty)
  - Linked to clinical settings
  - Ultimate goal: improvements in care delivery
- Reinforce principles across experiences
- Develop champions: schools and health system
- Equip faculty to be proficient at this work
- Measure outcomes and continuously improve



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