The CLARION Competition and the SoTL Paradigm

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Effective Healthcare Today...

... is built on interprofessional, population-based, and evidence-based approaches to provide care that is safe, timely, equitable, patient-centered, and efficient (Institute of Medicine, 2000, 2001; WHO framework, 2010).

Also important is the revised WHO/ICF model of recognizing the effect of any impairment on a person’s ability to be independent, and socially active.
There is Increasing Recognition of the Need to...

- Provide students in healthcare professions with ongoing opportunities to problem-solve and learn together in interprofessional teams – and to measure outcomes

(Buelow, Downs, Jorgenson, Karges, & Nelson, 2008; Goldberg et al., 2010; Harris, Henry, Bland, Starnaman, & Voytek, 2003; Heuer, Geisler, Kamienski, Langevin, & Maillet, 2010; Poikela & Poikela, 2005; authors in 2010 issue of the Journal of Allied Health.)
SoTL and IPE: Definitions

SoTL tenets:
- Student-centered, experiential learning
- Collaborative
- Interdisciplinary/interprofessional
- Systematic data collection
- Dissemination of the results

Thus the **Scholarship of Teaching and Learning (SoTL)** broadens the scholarship of discovery through complementary scholarship in the areas of integration, application, and teaching (Huber, 2004).
Interprofessional Education (IPE)...

“occasions when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes”

Centre for the Advancement of Interprofessional Education (CAIPE, 1997)

Promulgated by the World Health Organization (2010)

- Six components of effective healthcare
- Need for students to work in interprofessional teams
Collaborative and Team-Based Competencies

• Interprofessional Education Collaborative (IPEC) expert panel (2011)
  – Two comprehensive reports on the core competencies needed for effective learning and practice in healthcare
SoTL, IPE and Research

• Data collection is an integral component:
  – Evaluating learning and clinical practice
  – Developing innovative educational and clinical methods to bridge the healthcare professions
  – Effective healthcare

Journal of Interprofessional Care; International J. for the Scholarship of Teaching and Learning; Journal of Research in Interprofessional Practice and Education

Journal of Allied Health
Benefits of Such Teamwork: The Cochrane Collaboration reviews

- Although more rigorous studies are needed, inter-professional learning has multiple benefits:
  - Increased knowledge through evidence-based inquiry,
  - Broader curricular perspectives,
  - Innovative hypothesizing,
  - Increased understanding of and respect for the variety of professionals involved in providing effective healthcare - both those in the front lines and those behind the scenes → effective teamwork
  - Ongoing engagement with those who need services
  - Increased patient satisfaction with services
One Valuable Opportunity…

CLARION = CLinician/Administrator Relationship Improvement Organization
CLARION National Competition

- Four-person inter-professional teams
- Undergraduate and graduate students

Prior to the competition; end of January
- Teams receive a complex, multi-faceted case
  - A sentinel event that resulted in the unexpected death or serious injury to an individual and his/her family or caregivers
- Learning through problem-solving must be student-led

For the competition in April
- Teams meet in Minneapolis for the day-long competition
- 20 minute presentation
- 10 minutes to respond to questions from the judges
  - The hospital’s safety panel
Mrs. Gibbons – 47 year old with 32 year history of epilepsy

Prescription given at last neurology visit, but wrong dose filled at pharmacy

Seizure resulting in fall and injury to head

CT scan revealed C4 fracture with spinal cord compression

Admitted to floor and transferred to step down unit

MRI ordered

Condition deteriorated – lost ability to communicate verbally

Had unrecognized respiratory arrest during MRI and died
Root Cause Analysis:

- To identify issues, including costs, and measurable solutions.
Effective Communication and a Systems-Based Approach are Vital

- Quality Assurance
- Ethical behavior
- Partnership, Empathy, Apology, Respect, Legitimacy, Support (PEARLS)
- Reflective listening
- Situation, Background, Assessment of situation, Recommendation (SBAR)
- Positive assertion
  - “I just need a little clarity...”
Cost-Benefit Analysis: An Integral Component

- Developed for proposed solutions
- A business plan is devised and recommended
- Ways to measure the effectiveness of the proposed solutions are documented and advocated
- Rec. from 2007 ASHA summit
Our Evolution: WSU and KU-Med.

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<th>CLARION¹</th>
<th>Pilot Program/Initial Participation</th>
<th>Two-semester Inter-professional Course</th>
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| Students and faculty meet | Students, faculty and invited speakers meet for 10 150-minute classes | Semester 1  
16 120-150-minute interactive classes, 1/week with 16 students working in 4-person inter-professional teams using case-based learning Pre-testing (baseline data) |
| Case is received  
Six weeks for analysis | Case is received  
Four weeks for analysis; team is chosen  
Public local presentation for feedback  
Two weeks for final preparation  
Presentation at national competition  
Debriefing  
Descriptive measurement of learning outcomes | Semester 2  
4 120-150-minute interactive classes, 1/week with students continuing to work in 4-person inter-professional teams to analyze CLARION case from the previous year. Winning team from local competition to compete nationally  
Case is received  
Five weeks for student-led analysis  
Public presentation locally for feedback  
One week for final preparation  
Presentation at national competition  
Debriefing & Post-testing  
Quantitative and qualitative measurement to analyze student learning and course effectiveness |
Seminar Themes include

• Evidence-Based Medicine/Practice (EBM/EBP), particularly levels of evidence, outcome measurement
• Systems-based approaches and a culture of competence; continuous quality assurance
• Effective teamwork and patient-centered care
• Root cause analysis
• Medical-legal issues; values and ethics
• Economic models, social determinants of health
• Leadership models and methods, facilitating change, collaborative planning and problem-solving
• Information technology systems
• Conducting applied research to measure effectiveness
Pre- and Post Testing

- 10 open-ended questions
  - E.g., In your opinion, what are the three most pressing issues in healthcare?; There is both science and art in the provision of effective healthcare. How does inter-professional practice play into this?; Do you think that professionals in medical disciplines define “high quality of care” differently from professionals in allied health disciplines? Please explain.
  - Validated content analysis software

- Adapted *FRESNO Test of Evidence-Based Medicine* (Ramos et al., 2003): Ability to access relevant literature and use EBM paradigms

  - 2 forms for pre-post testing
  - 5 subtests, each with 16 items (discriminate between true and false inferences; recognize assumptions; form appropriate deductions; correctly interpret evidence for conclusions; and evaluate the strength and relevancy of arguments)
Did We Enhance and Measure Students’ Interprofessional Learning?

Interprofessional faculty

Active case-based learning

Students networked with community leaders

Pre- and post testing showed positive outcomes

Issues Still to be Addressed

- Course is cross-listed but organization in the two schools is different
  - Evening seminars to avoid course conflict
- Meaningful course – or a way to try to win a competition?
  - Basic costs: $2,000 entry fee; team travel to MN
  - Spring 2012: Planning for two initiatives in the Fall
  - 1. Semester-long team problem-solving with local competition
  - 2. Semester+ team research with active data collection, e.g., issues in aging
  - 3. Early activities to facilitate teamwork and address possible (profession-specific) differing expectations
- Need to study the long-term effects on “graduates” from the seminars:
  - How do they feel about being “change agents”?
    - We do have descriptive e-mail data…
In Summary

The tenets of SoTL lend themselves to the IPE experiences needed by CSD students and faculty:

- Student-centered, experiential learning
- Collaborative
- Interdisciplinary/interprofessional
- Systematic data collection
- Dissemination of the results

Publications are possible

It’s a “win” situation:

For students and faculty, the visibility of programs, and improved services for those who need our care.