Clinical Safety & Effectiveness
Cohort # 9
Integration of IOM Content into the Nursing Curriculum
Financial Disclosure

Suzanne Yarbrough, PhD, has no relevant financial relationships with commercial interests to disclose.

Gemma Kennedy RN, PhD, has no relevant financial relationships with commercial interests to disclose.

Andrea Berndt, BS, MS, PhD, has no relevant financial relationships with commercial interests to disclose.

Carole White, PhD, has no relevant financial relationships with commercial interests to disclose.
The Team

CSE Participants
• Andrea Berndt
• Gemma Kennedy
• Suzanne Yarbrough
• Carole White

Other Team Members
• Lisa Cleveland
• Margit Gerardi
• Rosalie Tierney-Gumaer

Facilitator
• Amruta Parekh

Sponsor Departments
• Carol Reineck, Health Restoration and Care Systems Management
• Adrianne Linton, Family and Community Health Systems
AIM STATEMENT

To increase, 10% above baseline, the perceived extent of content integration of IOM competencies into all courses in the undergraduate and graduate programs by School of Nursing faculty at UTHSCSA School of Nursing, by Spring 2012
Background

School of Nursing

**Undergraduate:** upper division BSN Accelerated and Traditional pre-licensure tracks

**Masters Program:** Nurse Practitioner Majors, Administrative Management, Clinical Nurse Leader, and RN to MSN track

**Doctoral Programs:** PhD and DNP (approved 2012)

**Total Student body 800 (500+ UG; 250+ Graduate)**

- 18% Male; 54% Hispanic, Black, Native American, & Asian
- More than 10,000 alumni since start in 1969
- 90% - 100% pass NCLEX & certification exams
- 90% employment
- 85-90% graduation rate 8/25 in state
Background

Faculty

105 faculty of which 55% are PhD prepared
All NP have a faculty practice

Two Centers of Excellence

Academic Center for Evidence Based Practice
Center for Community Based Health Promotion - Women & Children

Simulation Center

New 7,281 Sq. foot Simulation Center (18 beds: Pedi & Adult ICU, ER, Same Day Surgery, Mother Baby, & Home care)
Background

IOM (created in 1970)
  • Mission to improve health through unbiased, evidence based and authoritative information and advice
  • Helped in the creation of NINR – evolution of EBP & improvement science
  • Restructuring of health care with emphasis on IPE & quality
  • Quality Chasm series and subsequent reports \(^{(Finkelman \text{ and Kenner, 2009)}}\)

American Association of Colleges of Nursing
  Essentials of Nursing Education Series

Commission on Collegiate Nursing Education
  Standards for Education based on improvement science principles

Carnegie Foundation for the Advancement of Teaching
Background

2008

- New Dean
- Revision mission, vision, goals & strategic plan
- Revisions begun on BSN curriculum- increase enrollments
  - New accelerated track – students with prior BS
  - Incorporation of IOM and essentials of BSN into both pre-licensure tracks
- Review of Grad programs
  - Addition of CNL and initiation of application for DNP
Background

SON has initiated changes to mission, vision, goals and curricula in keeping with IOM competencies

Now we need to assure that faculty are ready to incorporate those concepts fully into the curriculum
Project Milestones

• Team created Sept 2011
• AIM statement created Sept 2011
• Bi-weekly team meetings Sept 2011-Feb 2012
• Background data, brainstorm sessions, workflow and fishbone analyses Oct 2011-Nov2011
• Pre-intervention data collection Dec 2011
• Pre-intervention data analysis Dec 2011
• Interventions implemented Jan 2012
• Post-intervention data collection Jan 2012
• Post-intervention data analysis Feb 2012
• CS&E Presentation Feb 2012
Selected Process Analysis Tools

• Brainstorming
• Literature Review
• Fishbone
• Force Field Analysis
Problem Statement: What issues impact SON faculty integration of IOM content in their courses?

Organizational
- Need interprofessional learning environment
- Culture of value and accountability
- Need for resources
- Curriculum development process (implicit vs explicit)
- Lack of communication
- Duplication of tasks
- Insular vs integrated approach to incorporation
- Need blueprint for IOM placement and leveling in courses

Process / Policy
- Student transfer to patient care & safety
- Measurement difficulty
- Difficulty deciding on conceptual definitions

People
- Students may not see connection bw theory and practice
- Faculty may not feel confident in content, or view content as essential
- Administrators need to establish clarity about need for IOM content, create system for accountability
- Clinical partners may not model IOM principles, may not feel responsible for IOM content

Resources
- Develop expertise
- Evaluate resources
- Develop content and fit in course
- Synthesize IOM content and curricula

Content experts
- Pedagogical experts

Technology, books, simulation
- Establish IOM repository
Force Field Analysis

Goal: To increase, **10% above baseline**, the perceived extent of content integration of **IOM competencies** into all courses in the undergraduate and graduate programs by **School of Nursing faculty** at UTHSCSA School of Nursing, by Spring 2012

<table>
<thead>
<tr>
<th>Driving Forces</th>
<th>Restraining Forces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in Health Care</td>
<td>Differing levels of exposure/education among nursing faculty</td>
</tr>
<tr>
<td>AACN Essentials of Education</td>
<td>Time to integrate content while revising curricula</td>
</tr>
<tr>
<td>CCNE accreditation</td>
<td>Limited technology and expertise with technology</td>
</tr>
<tr>
<td>Publication - Educating Nurses, A Call for Radical Transformation</td>
<td>Integrating course teams</td>
</tr>
<tr>
<td>Publication IOM - Teaching to IOM Competencies</td>
<td>University and system influences that impact IPE team work</td>
</tr>
<tr>
<td>Publication of IOM Future of Nursing Report</td>
<td>Lack of awareness of resources</td>
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<tr>
<td>Increase BSN and higher degree graduates</td>
<td>Lag between intervention and implementation in practice</td>
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<tr>
<td>Revised mission, vision, and strategic plan</td>
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<tr>
<td>Academic Center for EBP</td>
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<tr>
<td>Administrative support</td>
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<td>Revisions to nursing curriculum</td>
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</table>
Assumptions in Undertaking this Project

• Both the undergraduate, graduate, and doctoral curricula will thread IOM content through all courses based on the fact that AACN Essentials for all nursing education emphasizes this content;

• The specific approach or focus of IOM content will differ from undergraduate level in terms of leveling and population focus;

• Familiarity and comfort with quality and safety content may vary among faculty relative to their areas of expertise and preparation.
Intervention

Plan

• Obtain baseline assessment on all faculty in regards to perceived extent of content integration of IOM competencies in the curricula and individual faculty courses

• Obtain baseline assessment on perceived facilitators and barriers to integration of IOM content
Implementing the Change
Do

IOM Core Competencies

AACN and the Institute of Medicine have identified the following core competencies:

1) Evidence-Based Practice: integrate best current practice for the delivery of optimal health care.
2) Informatics: use information and technology to communicate, manage knowledge, and support decisions.
3) Patient-Centered Care: recognize patient/family as partner(s) to provide compassionate/coordinated care.
4) Quality Improvement: use data to continuously improve the quality and safety of health care systems.
5) Safety: minimize risk of harm to patients through individual and system effectiveness.
6) Teamwork/Collaboration: foster communication, respect, and shared decisions among health professionals.

7. How knowledgeable are you about each competency?

<table>
<thead>
<tr>
<th>Competency</th>
<th>Do not know</th>
<th>Not at all</th>
<th>Barely</th>
<th>Somewhat</th>
<th>Quite</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence-Based Practice</td>
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<tr>
<td>Informatics</td>
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<tr>
<td>Quality Improvement</td>
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<tr>
<td>Safety</td>
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<tr>
<td>Teamwork / Collaboration</td>
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</tbody>
</table>
Implementing the Change

Do

11. What are the primary facilitators for integrating the competencies in your course(s) [check all that apply]?  

- Access to subject-matter experts
- Administrative support
- Campus resources (e.g., ACET, IT)
- Comfort teaching competency (ies)
- In-house resources (e.g., ACE)
- Knowing it’s the right thing to do
- Knowledgeable in competency (ies)
- Local conferences addressing the competency (e.g., Summer Institute on EBP)
- Meeting the school’s expectations
- Observed student use/understanding of competency (ies)
- Positive student reactions / feedback
- Prior applied experience (s)
- Prior teaching experience (s)
- Support from course team
- Support from other faculty

Other (please specify)

...
Results/Impact

Check/Study

- 54 faculty responded to the baseline survey
- (Response Rate = 51%, 54 of 105)

<table>
<thead>
<tr>
<th>Program</th>
<th>%&lt;sub&gt;a&lt;/sub&gt;</th>
<th>Years teaching in SON</th>
<th>%</th>
<th>Highest Degree</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>78</td>
<td>Less than 1 year</td>
<td>9</td>
<td>Masters in Nursing</td>
<td>61</td>
</tr>
<tr>
<td>Graduate</td>
<td>30</td>
<td>1 to 7 years</td>
<td>66</td>
<td>Doctorate in Nursing</td>
<td>24</td>
</tr>
<tr>
<td>Doctorate</td>
<td>19</td>
<td>More than 7 years</td>
<td>25</td>
<td>Doctorate (other field)</td>
<td>15</td>
</tr>
</tbody>
</table>

a. Program percentage exceeds 100 because faculty members teach in multiple programs.
## Results/Impact

### Check/Study

<table>
<thead>
<tr>
<th>Baseline Assessment</th>
<th>Don’t Know</th>
<th>Barely/ Somewhat</th>
<th>Quite a lot</th>
<th>Fully</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent to which IOM Competency Content is Integrated in Curricula</td>
<td>9%</td>
<td>24%</td>
<td>46%</td>
<td>21%</td>
</tr>
<tr>
<td>Evidence-Based Practice</td>
<td>11%</td>
<td>65%</td>
<td>20%</td>
<td>4%</td>
</tr>
<tr>
<td>Informatics</td>
<td>9%</td>
<td>28%</td>
<td>39%</td>
<td>24%</td>
</tr>
<tr>
<td>Patient-Centered Care</td>
<td>9%</td>
<td>57%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Quality Improvement</td>
<td>9%</td>
<td>25%</td>
<td>22%</td>
<td>44%</td>
</tr>
<tr>
<td>Safety</td>
<td>9%</td>
<td>39%</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Teamwork/Collaboration</td>
<td>9%</td>
<td>39%</td>
<td>26%</td>
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<tbody>
<tr>
<td>Extent to which IOM Competency Content is Integrated in Your Courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence-Based Practice</td>
<td>2%</td>
<td>13%</td>
<td>64%</td>
<td>20%</td>
</tr>
<tr>
<td>Informatics</td>
<td>2%</td>
<td>65%</td>
<td>29%</td>
<td>4%</td>
</tr>
<tr>
<td>Patient-Centered Care</td>
<td>2%</td>
<td>24%</td>
<td>42%</td>
<td>31%</td>
</tr>
<tr>
<td>Quality Improvement</td>
<td>2%</td>
<td>47%</td>
<td>36%</td>
<td>16%</td>
</tr>
<tr>
<td>Safety</td>
<td>2%</td>
<td>18%</td>
<td>38%</td>
<td>42%</td>
</tr>
<tr>
<td>Teamwork/Collaboration</td>
<td>2%</td>
<td>29%</td>
<td>42%</td>
<td>27%</td>
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## Results/Impact Check/Study

### Baseline Assessment

<table>
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<tr>
<th>Primary Facilitators</th>
<th>%</th>
<th>Primary Barriers</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Access to subject-matter experts</td>
<td>46%</td>
<td>Insufficient knowledge of competency</td>
<td>20%</td>
</tr>
<tr>
<td>Campus resources</td>
<td>41%</td>
<td>Lack of administrative support</td>
<td>19%</td>
</tr>
<tr>
<td>Knowing it’s the right thing to do</td>
<td>59%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meeting the school’s expectations</td>
<td>43%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior teaching experience</td>
<td>37%</td>
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Intervention Plan

• Provide faculty with resources for the integration of IOM core competencies into nursing curriculum
• Follow-up data collection
• Small changes to survey based on baseline data collection
Expansion of Our Implementation

Do

• Books distributed to faculty
  • Educating Nurses: A Call for Radical Transformation (Benner et al.)
  • Teaching IOM (Finkelman & Kenner)
• Faculty Development Day with Anita Finkelman on January 6, 2012 (attended by 65 faculty)
• Conducted follow-up survey
Results/Impact

Check/Study

• 32 faculty responded to the post-test survey
  • Of these 32, 21 had baseline responses and attended the IOM seminar
    • Overall response rate = 30%, 32 of 105
    • Pre-post response rate = 39%, 21 of 54

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<th>%</th>
<th>Highest Degree</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
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<td>67</td>
<td>Less than 1 year</td>
<td>0</td>
<td>Masters in Nursing</td>
<td>55</td>
</tr>
<tr>
<td>Graduate</td>
<td>29</td>
<td>1 to 7 years</td>
<td>71</td>
<td>Doctorate in Nursing</td>
<td>35</td>
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## Results/Impact

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<td>Informatics</td>
<td>0%</td>
<td>60%</td>
<td>25%</td>
<td>15%</td>
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<td>Patient-Centered Care</td>
<td>0%</td>
<td>25%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>Quality Improvement</td>
<td>5%</td>
<td>45%</td>
<td>35%</td>
<td>15%</td>
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<tr>
<td>Safety</td>
<td>0%</td>
<td>25%</td>
<td>45%</td>
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<td>35%</td>
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Expansion of Our Implementation Act

• Content validity study of new undergraduate program underway
• Task force is reviewing graduate program
• DNP (based on IOM) has been newly approved – defining query projects which are focused on integration of IOM core competencies into care
Return on Investment

Investment in Intervention

• Faculty taking CS & E course (60 hours * 4 faculty) and time to design and execute project

• Investment in books for 105 faculty (~ $1000)

• Investment in workshop (~1500+)

Returns on Investment

• Integration of IOM core competencies into the curriculum should:
  • increase NCLEX pass rates and certifications
  • result in cost-savings for our community of interest as graduates better integrate core competencies into their care
Return on Investment:

Return on Investment: PRICELESS

For everything else there is MasterCard
Conclusion/What’s Next

• Disseminate results to nursing faculty
• Publish results
• Use project as template for other schools to integrate IOM core competencies into curriculum
Thank you!