Building the Infrastructure to Support IPE

Brenda Zierler, PhD, RN, FAAN
University of Washington
November, 2012; 8:45 to 10:00 AM
1st Annual MA-NH-RI Regional Collaborative for IPE

Objectives of Presentation

• Describe the infrastructure (people, places, and things) needed to support IPE
• Describe the steps in building a sustainable IPE program

Interprofessional Education Collaborative Expert Panel (2011)

• Four core competency domains
  – Roles/Responsibilities
  – Interprofessional Communication
  – Teams and Teamwork
  – Values/Ethics for Interprofessional Practice

**IPE as an Innovative Tool**
- Links the education system and the healthcare delivery system to address the “Triple Aim”
  - To achieve better patient care
  - To achieve better public health
  - To achieve a more efficient and affordable healthcare system


**Building the Case for IPE**
- Evidence from literature – high functioning teams improve outcomes of care
  - 70% of errors related to poor communication within and across teams
- We educate students in silos with no opportunity to learn and practice collaboratively
- Team-based competencies should be a core goal in health professions education

**IPE: How much & How often?**

[Logo: Center for Health Sciences Interprofessional Education, Research and Practice]
Building an IPE Program – What does it look like?
• Develop IPE Event (quarterly/annually)?
• Create new IPE Course?
• Integration of IPE competencies within an existing course?
• Shared clinical experiences (joint placements)?
• Shared learning experiences – quality improvement or capstone projects?
• Service Learning

Dose and Timing of IPE
• Students need education and clinical experience specific to their profession
• Students need to establish their individual professional identity
• Students need opportunities to learn and practice as members of interprofessional teams (matched with the right level of students)
• How much and how often should students train together?

Uni-professional – Value own culture
• Students need to establish their individual professional identity
• Nursing simulation laboratory
Interprofessional – Value Team Culture

- Match Student Level and Skills

Faculty Development for IPE

Center for Health Sciences Interprofessional Education, Research and Practice

Developing Faculty to be IPE Competent

- Why?
  - Socialization, culture, perspective – learned early in uni-profession education
  - Role models for students
  - Building capacity of IPE experts
  - Excellent teams in practice (but do they facilitate team skills or clinical skills?)
Steinert’s Systematic Review on FD (2005)

- Attitudes changed positively and knowledge increased
- Teaching behavior improved (per teachers and learners)
- Key features of effective faculty development:
  - Experiential learning
  - Provision of feedback
  - Effective peer/colleague relationships
  - Well-designed interventions following sound learning principles
  - Diversity of teaching methods


Phases in Developing Faculty to Participate in and Lead Interprofessional Education

Engagement → Training to Facilitate IP Learning → Mentoring for IPE Leadership

Possible Approaches for Engagement of Faculty

- Case-based workshops
- Team-based rounds
- Team-building exercises
- Peer coaching and mentoring
- Web-based learning
- Longitudinal programs
- Communities of practice

IPE Competency Domains-Teaching Example

- Role Clarity and Responsibility (what to teach)
- IPE Pictionary (example of how to teach)


Interprofessional Pictionary
Role Clarity

• Faculty need to understand roles and responsibilities in order to teach students

• Interactive Exercise: As a team, decide who the health care professional is based on information provided by that discipline

• Draw a representation of the health care professional without using letters or numbers (MD, RN, Rx, etc – not allowed)

Training Requirements:
Doctoral Degree

Usual Practice settings:
Hospitals (inpatient and outpatient care), Community Settings, Clinics

Scope of Practice includes:
Health and medication education, treatment consultation, prescribe under protocol, administer medications, provide immunizations

Unusual Practice setting:
NASA
Training Requirements: Doctoral Degree
Usual Practice Settings: Private Practice, schools, hospitals, nursing homes, professional athletics
Scope of Practice includes: Practice without a MD prescription
Unusual Practice Setting: Consulting, Film Studios

Training Requirements: Doctoral degree
Usual Practice Settings: Outpatient clinic/office
Scope of Practice includes: Performing minimally invasive procedures, prescribes medications, provides oral care
Unusual Practice Setting: Acute care hospital

IP Pictionary: Reflection
• What assumptions am I making?
• Where did I learn these values?
• What values/beliefs orient me?
• How might someone whose role is different than mine look at this?
• What are the biases and stereotypes about the profession? Do I perpetuate them with students?
Faculty Development - Active Learning

- Readers Theatre (by Peggy Schlesinger, MD)

FD Training – Team Building Exercises

Faculty Development: Team Building
Training to facilitate IPE, Chiapas, Mexico 2011

Changes in Culture – Value of Teams

Preparing Faculty to Lead IPE Experiences

• Faculty helping to design or lead IPE experiences need to know what works (and doesn’t work)
• Thistlethwaite & Nisbet (partial listing)
  – Clear learning outcomes
  – Planned involvement of professions
  – Linking content to clinical experience
  – Making the experience interactive
  – Building in time for reflection
  – Planning formative or summative assessment
  – Creating sustainability

What are the simple rules for faculty development? *(same as for students)*

- Integrate efforts into real work in which the faculty member is engaged.
- Use **active learning**.
- Spend time building **relationships**.
- Track and use a few meaningful **outcomes**.
- Align **incentives**.
- Celebrate and spread successes; learn from failures.

**Faculty Development - Challenges**

- Release time for IPE training.
- Release time for IPE teaching.
- Assumptions about being IPE competent.
- Teaching in new ways: active learning vs PowerPoint.
- Receiving credit for group projects (APT).
- Intellectual property – IPE Modules.

**Faculty Development – Lessons Learned**

- **Timing of faculty training**: Tension to develop faculty prior to training students.
- **Consider student evaluation of IPE competence:**
  - How does my Attending communicate with the charge nurse?
  - Is the Pharmacist an active and valued member of the team?
- **Keep the focus on the IP communication**: Simplify cases and level the playing field.
- **Help faculty be knowledgeable**: Provide resources such as articles, specific teaching strategies, technology assistance, JIT training, demonstrations.
Feedback is Key for Facilitating IPE

Student Development in IPE
Formal & Informal Opportunities

Interprofessional Student Organizations
IHI Open School; Health Equity; Service Learning
UW Chapter, 2012

Winter 2012 Kickoff Event:
- >100 students attended from 6 Health Sciences disciplines
- Paper scavenger hunt
- Pizza
- Presentation from Dr. Michael Westley of Virginia Mason

Flipping Classrooms (allows for engagement)

IHI Open School: Socializing – Informal Setting

Spring 2012 Trivia Night (>50 students)
IHI Open School: Socializing – Informal Setting

2012 Health Sciences Common Book Series
Anne Fadiman’s *The Spirit Catches You and You Fall Down*
A Hmong Child, Her American Doctors, and the Collision of Two Cultures

Join students and faculty from UW health sciences disciplines for dynamic discussions around understanding community identity, provider and family decision making and contemporary perspectives on multiculturalism and healthcare.

Students from ALL schools are welcomed and encouraged to attend each discussion. Each session will cover different content and themes.

(4) Interprofessional Discussion Sessions facilitated by faculty

Examples of an IPE Program

Center for Health Sciences Interprofessional Education, Research and Practice
University of Washington: IPE Opportunities

• IPE Events (large scale quarterly; small scale monthly)
• IPE Courses (integration of IPE competencies)
• IP Projects
• IP Collaborative Practice
• Service Learning
• IPE Scholarship (graduate students, faculty)
• Faculty Development (Teaching Scholars, Train-the-Trainer and Use of Technologies)

UW Center for Health Sciences Interprofessional Education, Research and Practice

• This program was formalized as a Center in 2000 with these goals:
  – Pamela Mitchell, PhD, RN (Founding Member)
  – Promote curriculum and clinical innovations in IPE and CP across the HS schools.
  – Provide the infrastructure for catalyzing IP training initiatives and faculty development.
  – Conduct evaluative research regarding the impact of health professions IP innovations on students, faculty, providers and the health of the public.

External Funding

• Develop & evaluate a simulation-based, team training program to improve collaboration and communication among health professional students (Josiah Macy Foundation)
• Develop faculty to teach/facilitate IPE competencies; pilot faculty development program (Josiah Macy Foundation – with U of Missouri (Les Hall, MD)
• Disseminate a validated training program to other health sciences schools by creating an exportable “Interprofessional Training Toolkit” (HRSA Training Grants)
UW - Building an IPE Simulation Event

- Reviewed literature (85 articles) summarizing IPE interventions
- Curriculum mapping across 4 health professional schools (opportunities for shared practice)
- Case development (using real, scrubbed cases)
  - 9 faculty, 19 students, 6 staff members
- Faculty Development
  - Role playing, facilitating, providing feedback, small group discussions
- IPE Shadowing experiences for students

Resources – People & Things

- Curriculum Mapping by Associate Deans

<table>
<thead>
<tr>
<th>Cognitive Materials – when and where does IPE happen</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOM</td>
</tr>
</tbody>
</table>

Curriculum Mapping as a Tool (Role Clarity)

- Heightened understanding of each other’s programs
- Identified common threads or themes
- Recognized gaps or unnecessary duplication
- Identified opportunities for shared learning
- Provided insight on optimal times to integrate IPE (communication and QI modules)
- Ensured necessary prerequisites for progression and growing level complexity (spiral) as well as horizontal and vertical integration of our curriculum
Components of a Curricular Map

- Competencies/Learning Outcomes
- Timing in the Curriculum
- Expected pre- and post-requisite knowledge, skills and attitudes (KSAs)
- Learning Format (lecture, small group, OSCE, SP, simulation)
- Assessment Strategies/Performance Measures
- Clinical Topics

Successes from Curricular Mapping

- Learned more about each other’s programs of study and scope of practice
- Identified and rectified gaps in the curriculum (TeamSTEPPS, Quality Improvement, ACLS training)
- Identified opportunities for shared learning with case studies (face to face and via technology)
- Identified opportunities for shared learning with simulation (face to face)
- Identified common themes where learning could be shared

Examples from University of WA

- Three types of communication large scale experiences/training
  - Acute and chronic simulation scenarios
  - Error disclosure and early apology team training
  - Team-based Clinical Problem Solving
High Technology, high fidelity simulation lab

SD Actor wearing “Pardo Pants” – mimic post-partum hemorrhage (low tech, high fidelity)

Standardized patient actor w/ Congestive Heart Failure
Teenager with exacerbation of asthma (Grandma is standardized actor)

Assessment Scholarly Opportunities
- Piloting Assessment tools
- Faculty and student observers scored teamwork and communication competencies during training
- Student participants scored their team and communication skills
- Videos of scenarios (for future video-coding)
- Psychometrics of tool (validity/reliability)
  – Assessment team (6 faculty and 2 doctoral students)

Early Apology & Error Disclosure Training
- Developed by Sarah Shannon, PhD, RN, Karen McDonough & Tom Gallagher, MD
University of Washington, Seattle
All Health Professions: Error Disclosure Day

- Half day workshop (3-hour EVENT) 2012
  - 210 - Second year medical students
  - 120 - Senior nursing students
  - 86 - Senior pharmacy students
  - 47 - Physician Assistant students
  - Nearly 80 faculty!!!

Objective: How to disclose health care errors

*Hidden curriculum: How to function as an effective member of a health care team*

Error Disclosure: A team sport!

- Interprofessional education goals:
  - Interprofessional team discusses error in a blame-free and honest manner
  - IP teams plan for error disclosure
  - IP teams disclose errors honestly and compassionately
  - IPE Competencies – communication, role clarity, values/ethics, teamwork

Faculty Development
Error Disclosure & Early Apology

- Just-in-Time Training (1.5-2 hours)
  - Cases for each profession
  - Teaching pearls
  - Debriefing statements
  - Acting lesson (sad/mad)
Error Disclosure Training
• 463 students and 76 faculty
• Short didactic lecture on patient safety (context)
• Role play car accident or spilling coffee on friend’s computer (practice apologizing)
• Didactic on IPE and planning error disclosure
• Team disclosures with standardized actors
  • Small groups (43 groups of 12)

Key Steps in Team Disclosure of an Error

<table>
<thead>
<tr>
<th>Key Step</th>
<th>Target Behaviors</th>
</tr>
</thead>
</table>
| Team Disclosure Error     | 1. Acknowledge error  
                          | 2. Offer Value for improvement during debrief |
|                           | 3. Ensures clear communication          |
|                           | 4. Regularly references team collaboration |
| Team Plan the Disclosure  | 1. Address the fall/damage |
|                           | 2. Plan order for the items |
|                           | 3. Plan impact on patient        |
| Team Disclose Error to a Patient | 1. Discuss impact of decision on patient |
|                           | 2. Regard the patient’s perspective about event |
|                           | 3. Apologize without shift in ownership |
|                           | 4. Establish ground rules for interaction |
|                           | 5. Discuss blame-free disclosure, acknowledge personal role |
|                           | 6. Other plans to prevent errors |
|                           | 7. Post-discussion follow-up with patient |
Error Disclosure Early Apology

Case:
- 84 yo nursing home patient
- known antibiotic allergy
- given antibiotic in error
- required intubation/ICU

* Used Trained ‘Family Member Actors

---

Evaluation: 1-5 scale (strongly disagree to strongly agree)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>The general session (didactic) was useful and interesting.</td>
<td>3.66</td>
</tr>
<tr>
<td>The small group skills practice was a useful and interesting learning opportunity.</td>
<td>4.50</td>
</tr>
<tr>
<td>Learning with other professional students was valuable.</td>
<td>4.69</td>
</tr>
<tr>
<td>Thinking about error disclosure from a team perspective was helpful.</td>
<td>4.75</td>
</tr>
<tr>
<td>The small group facilitator/s’ feedback was helpful.</td>
<td>4.76</td>
</tr>
<tr>
<td>I felt I had the opportunity to participate in the small group.</td>
<td>4.72</td>
</tr>
<tr>
<td>Overall, the facilitator/s contributed to my overall learning.</td>
<td>4.77</td>
</tr>
</tbody>
</table>

---

Evaluation: Two open-ended items

1. Please share one thing you learned today that you plan to apply in your future practice

Responses:

104 Positive comments about teamwork
142 Comments about some aspect of content
- 46 Importance of planning for disclosing an error
- 35 Importance of admitting error, taking responsibility, apologizing
- 24 Communication skills with patient
- 18 Process: acknowledge patient’s emotions
- 15 Process: patient understanding of how error happened
- 4 Process: need for follow up after initial disclosure
IP: Individual responsibility and teamwork (IPE Competencies)

I learned that all health professions feel equally responsible for error.

It was great to see each team member possessing a sense of responsibility. I will continue to carry that throughout my career.

Get support; work as a team.

The importance of team vs. individual accountability.

Most Important Concepts Learned – Student Feedback

• Working together as a team to disclose an error
• Not to expect patients to be OK with what happened at the end of the disclosure; that it is a process and not a one-stop fixes all
• That of actually apologizing (and not just being sorry)
• (Tool) Specific stages/steps of disclosure (fairly easy to remember forever)
• Liked the progression of acting out a non-medical apology to a “Harm” error (car accident)

Challenges
Challenges

- Logistics - infrastructure
  - Timing of interprofessional experiences
  - Shared space for active learning (simulation lab)
  - Scheduling & academic calendars (logistics)

- Faculty
  - Changing culture
  - Creating IP learning opportunities (teaching in different ways)
  - Mentoring and modeling effective communication

- Students
  - Observing faculty (role models)
  - Complexity of cases
  - Demanding “active learning” (driving IPE)

OPPORTUNITIES

Community Partnerships

- Established regional simulation collaborative
- PNWHSC currently has over 117 members from over 30 simulation centers and 7 industry partners.
Who are Our Partners - UW?

- Healthcare System (UW Medicine)
  - TeamSTEPPS Enterprise (6 units at 2 hospitals); 127 staff trained
  - Patient Safety Officers (Master Trainers)
  - One of 5 national centers
- VA grant - Primary Care Center of Excellence
  - Residencies for NP/internal medicine residents (teamlet)
  - NIH Center of Excellence for Pain Education
- Community partners – established regional simulation collaborative - 78 members representing 35 sites
  - Ambulance donated for rural training

Who are Your Partners (actual, possible or desired)?

- Academic (teaching and research)
  - Students/faculty within and across health profession and other schools
- Practice
  - Clinical, patient safety, quality improvement, Centers
- Community
  - Patients/patients advocates
  - Business (Boeing, etc)

Who are Partners (actual, possible or desired)?

- External Funders
  - Leverage research and training grants
  - Build in faculty development/team training
- Examples:
  - AHRQ grants on patient safety (2)
  - HRSA grant - faculty development use of technology
  - Congressional grant – simulation-based training
  - NIH Center of Excellence in Pain
  - VA Primary Care Center of Excellence (team training)
IPE Partners

• Research Partners
• Practice Partners
• Regional Simulation Group
• Patient Advocacy Groups
• UW Health Sciences IPE Initiative
• IPE Teaching Scholars

- Leveraging current and future grants
- Global Health: Training in Mexico and Kenya
- Academic Partners Regional National International
- National TeamSTEPPS Master Training Site
- Industry Partners (Boeing, Business School)
- Donors Alums

collaborate.uw.edu
• Interprofessional Training Toolkit (Website)

Summary:
Building the Infrastructure to Support IPE

Center for Health Sciences Interprofessional Education, Research and Practice
**Building an IPE Program – Essentials**

- Leadership at highest levels
- Business case or rationale for doing IPE
- Engage faculty & student champions
- IPE Center with dedicated faculty/staff (resources – space, equipment, standardized actors, technologies)
- Plan for developing faculty to be IPE competent
- Map curricula across various schools to determine opportunities
- Coordinate and communicate IPE events

**Faculty Development – Activities Implemented**

- IPE Faculty Development Certificate (U Toronto)
- Master Training: TeamSTEPPS Program
- Case development: using real, scrubbed cases
- Developing new skills: role playing, facilitating, providing feedback, small group discussions
- IPE Pictionary: activity for role clarity
- Consultants: University of British Columbia
- IPE Faculty Teaching Scholar’s Program
- Just-in-time training

**Building the Infrastructure to Support IPE**

[Image of Center for Health Sciences Interprofessional Education, Research and Practice]
Getting Started

• Appreciative Inquiry approach
• Mechanism for communicating
• Don’t reinvent the wheel (what’s already working elsewhere?)
• Start small and celebrate every event (continuous process improvement)
• Credible leaders (IPE competent)
• Long range planning (holding dates/times)
• IPE Training - mandatory
• Service Learning - voluntary

UW MACY TEAM

*Debra Liner, BA
Peggy Odegard, PharmD
Sarah Shannon, PhD, RN
Linda Vorvick, MD (PA program)
Nanci Murphy, PharmD
Mayumi Willerdodt, PhD, RN
Chia-Ju Chiu, PhD student (nursing)
Erin Abu-Rish, PhD student (nursing)
Elizabeth & Emily Malik (grad students)
Megan Sherman, Farrah Leland, Elizabeth
Buttrick & ISIS Simulation Techs

Sharon Wilson, FNP
Leslie Carranza, MD
Thomas Gallagher, MD
Karen McDonough, MD
Lynne Robins, PhD
Doug Brock, PhD
Dana Hammer, PhD
Daniel Low, MD
Katherine Blondon, MD
Ken Pfitz, CRNA

Center for Health Sciences Interprofessional Education, Practice & Research
ACKNOWLEDGMENTS

• Paul Ramsey, MD & Nancy F. Woods, PhD, RN, FAAN
• Pamela Mitchell, PhD, RN FAAN – Founding Member UW CHS ERP
• Dr. Carlos Pellegrini, Executive Director of Institute for Simulation and Interprofessional Studies (ISIS)
• RWJF – Nurse Executive Fellowship
  – Boeing Mentors – Mr. Jim Bouey & Mr. Steve Atkins
• Dr. George Thibault & the Josiah Macy Foundation & HRSA