Innovative Interprofessional Education and Collaborative Practice Models

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Presenters

- Dr. Abby A. Kahaleh
  Roosevelt University College of Pharmacy
- Dr. Jennifer Danielson
  University of Washington College of Pharmacy
- Dr. Kari L. Franson
  University of Colorado School of Pharmacy
- Dr. Wesley A. Nuffer
  University of Colorado School of Pharmacy
- Dr. Hoai-An Truong
  University of Maryland Eastern Shore School of Pharmacy
- Dr. Elena M. Umland
  Thomas Jefferson University, Jefferson School of Pharmacy
Program Description

The main purpose of this program is to examine effective strategies for establishing interprofessional education (IPE) models for pharmacy students nationwide.

Program Objectives

1. Describe the key concepts of the IPEC & IOM reports (Abby)
2. Evaluate teams and teamwork across an IPE curriculum (the University of Washington initiative) (Jennifer)
3. Examine student perceptions of professional roles and responsibilities across the IPE curriculum (Kari)
4. Describe IPE experiential experiences that were successfully implemented in Colorado (Wes)
5. Examine the challenges for implementing IPE collaborative practice model in Maryland and strategies to overcome them (Hoi-An)
6. Assessing IPE experiences (Elena)

Rationale

- Working on an interdisciplinary team as one of five core competencies for health care professionals (IOM Report: Health Professions Education: A Bridge to Quality)
- Studies have shown improved patient outcomes...when health care professionals work together (AACP Issue Brief citing IOM’s call for a new health system for 21st century for primary health care teams)
Interprofessional Education Collaborative (IPEC) Sponsors

- American Association of Colleges of Pharmacy
- American Association of Medical Colleges
- American Association of Colleges of Osteopathic Medicine
- American Association of Colleges of Nursing
- American Dental Education Association
- Association of Schools of Public Health

IPEC Report: Core Domains

I. Values and Ethics for Interprofessional Practice
II. Roles and Responsibilities
III. Interprofessional Communication
IV. Teams and Teamwork

Interprofessional Education Initiative
University of Washington

Jennifer Danielson, PharmD, MBA, CDE
Director of Experiential Education, Introductory Practice
Assistant Professor
IPE Activities

1. Acute Care Simulation .............................................. May
   - MD, PharmD, BSN, PA
   - High fidelity scenarios: SVT code, respiratory distress, postpartum hemorrhage

2. Medication Error Disclosure ..................................... March
   - MD, PharmD, BSN, PA
   - Role play scenario: team disclosure to family member

3. Team-Based Clinical Problem Solving ........................ October
   - MD, PharmD, BSN, PA, social work
   - Technology enhanced active learning: difficult patient

- Common Book Discussions
- Volunteer/Student-driven service learning
- IPE Teaching Scholar Program
- Other selected programs, activities, seminars

Strategic Vision

To create an integrated, collaborative learning system across the health and related professions that connects disciplines, promotes teamwork, fosters mutual understanding, strengthens research, and advances health for individuals and populations.

Mechanisms

- Progressive integration into core curriculum
- Service learning/collaborative practice
- Joint Curriculum Advisory Committee
- Faculty development
- IPE research and evaluation
Medicine (2nd and 3rd)

Nursing (BSN Juniors and Seniors)

Pharmacy (3rd and 4th)

Physician Assistant (1st - 2nd)

Dentistry ?

Social Work ?

Public Health ?

UW IPE Curriculum

Figure adapted from Compton, L., & Davis, N. (2010). The impact of key elements for a successful virtual early field experience. Contemporary Issues in Technology and Teacher Education, 10(3). http://www.citejournal.org/vol10/iss3/general/article1.cfm
Integrated Curriculum

1. Team-building (TeamSTEPPS)
2. Team-based primary care
3. Inpatient clinical problem solving
4. Root cause analysis: hospital infection
5. Medication error disclosure
6. Dental emergencies
7. Post-deployment care
IPE Evaluation Tools

- **AMUSE\(^1\)**
  - Attitudes, motivation, utility, self-efficacy
- **Semi-quantitative assessment of learning about roles/responsibilities\(^2\)**
  - Measures movement in understanding of roles
- **Others in literature about attitudes and collaboration in practice**

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Longitudinal IPE using small IPE group sessions

- Interprofessional orientation (1 day): 6 hours of professional qualities and collaboration
- Interprofessional fundamentals (2 years): 12 hours of team work, collaboration, QI, and safety
- Interprofessional ethics (1 year): 20 hours of ethical theory, professional ethics, and interprofessional approaches to decision making
- Clinical transformations (1 year): 4 hours of video monitored simulation exercises of teamSTEPPS (Strategies and Tools to Enhance Performance and Patient Safety) process

IPEC competency: Roles & responsibilities

Kari L. Franson, PharmD, PhD
Associate Dean for Professional Education, Department of Clinical Pharmacy

- Use the knowledge of one’s own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served
- The Role Perception Questionnaire (RPQ) Mackay S, J of Interprofessional Care 2004;18(3):289-302
Experiential Interprofessional Activities in Colorado APPE Site Communities

Wesley Nuffer, PharmD, BCPS, CDE
Assistant Director of Experiential Programs
Assistant Professor

Experiential IPE- Colorado

• Focus on rural communities
  – DSM centers available for student collaboration
  – Preferred student placement 48 weeks/year
• Funding for IPE activities through Kaiser Foundation
  – Focused on 3 schools (Medicine, Dental Medicine, Pharmacy)
  – Nursing, P.A., Public Health added later
Goal of Project

- Placing students together to facilitate interprofessional activities in rural/underserved areas
- Provide service to these areas while promoting interprofessional education

Coordination through AHEC

- Area Health Education Centers placed students in rural housing
  - Received information from various programs regarding student placement
  - Coordination of students for local events
- Centralized coordination
  - Getting students to the right places at the right times
  - Putting students in touch with each other

Service Learning Opportunities

- Health fairs, health screenings
- School shows, career talks
- Disease-focused presentations
AHEC-Coordinated Events

Estimated Number of Rural Community Participants Involved in the Medical Student Community Service Learning Activity

<table>
<thead>
<tr>
<th>Funding Year</th>
<th>Adults</th>
<th>Children/Adolescents</th>
<th>Underrepresented Minorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-2010</td>
<td>7,512</td>
<td>4,041</td>
<td>3,654</td>
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<tr>
<td>2010-2011</td>
<td>7,296</td>
<td>2,755</td>
<td>4,537</td>
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<tr>
<td>2011-2012</td>
<td>7,312</td>
<td>4,215</td>
<td>3,021</td>
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<tr>
<td><strong>Total</strong></td>
<td>22,120</td>
<td>11,011</td>
<td>11,212</td>
</tr>
</tbody>
</table>

Interdisciplinary Contacts Occurring during Community Service Learning Projects (10/2011 – 5/2012)

<table>
<thead>
<tr>
<th>Discipline</th>
<th>PT</th>
<th>OT</th>
<th>PA</th>
<th>ICT</th>
<th>Social Work</th>
<th>Speech</th>
<th>Dental</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2010-11</strong></td>
<td>19</td>
<td>35</td>
<td>15</td>
<td>22</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>120</td>
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<td><strong>2011-12</strong></td>
<td>44</td>
<td>68</td>
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<td>66</td>
<td>43</td>
<td>43</td>
<td>58</td>
<td>539</td>
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<tr>
<td><strong>Total</strong></td>
<td>63</td>
<td>103</td>
<td>59</td>
<td>77</td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>758</td>
</tr>
</tbody>
</table>

Evolution of Services

- Shift from service-learning activities to patient-care activities
  - Begin to focus on objectives/outcomes
  - Roles & responsibilities
  - Interprofessional communication
  - Teams & teamwork
- Integrate preceptors into teams
  - Promotes interprofessionalism at each practice site
  - Not necessarily same demographic location

Outcomes of Collaborative

- More unified site selection
  - Focus on similar geographic locations
  - Cross-recruitment
- Appreciation of logistical challenges
  - Site placement, clinical rotations vary across schools
  - Demands from on-site faculty/preceptors
  - Many barriers overcome
Challenges to Experiential IPE

• Scheduling
  – Rotation blocks varied
  – Identifying mutual time to collaborate
  – Avoid placing burden on site

• Student placement
  – Overlapping sites within a community
  – Overlapping times for student placement
  – Mutual goal for promoting IPE activity

Interprofessional Collaborative Model in Maryland for Clinical Practice and Experiential Education Opportunities

Hoai-An Truong, PharmD, MPH
Associate Professor of Pharmacy Practice
Assistant Dean for Professional Affairs

University of Maryland Eastern Shore
School of Pharmacy and Health Professions

Team Acknowledgements
Acknowledgement of Partners & Team Members:

Primary Care Coalition of Montgomery County
- Rosemary Botchway, MS HCA
  Director, Center for Medicine Access
- Diem-Thanh (Tanya) Dang
  Coordinator, Center for Medicine Access
- Heather B. Congdon, PharmD, BCPS, CDE
  Assistant Dean & Assistant Professor
- Faramarz and Fariborz Zarfeshan, RPh
  Co-Owners and MTM Pharmacists

Mercy Health Clinic
- Nancy Ripp, MD
  Medical Director
- Donna Romer, RN
  Nurse
- Howard Schiff, PD
  Executive Director

University of Maryland Baltimore School of Pharmacy
- Jennifer Thomas, PharmD
  Pharmacy Services Manager

University of Maryland Eastern Shore School of Pharmacy
- Rosemary Botchway, MS HCA
  Director, Center for Medicine Access

ALFA Specialty Pharmacy
- Nancy Ripp, MD
  Medical Director
- Donna Romer, RN
  Nurse

Maryland Pharmacists Association
- Jennifer Thomas, PharmD
  Pharmacy Services Manager

Delmarva Foundation Quality Improvement Organization
- Rosemary Botchway, MS HCA
  Director, Center for Medicine Access

Partnership Roles

- **Primary Care Coalition of Montgomery County**
  - Facilitates project and serves as liaison between Primary Care Clinics and pharmacists for MTM services

- **Mercy Health Clinic**
  - Provides the patient population receiving MTM and experiential rotation site for pharmacy students and residents

- **University of Maryland Baltimore School of Pharmacy**
  - Provides faculty pharmacist’s expertise and time for MTM and facilitates experiential rotations for students and residents

- **University of Maryland Eastern Shore School of Pharmacy**
  - Provides faculty pharmacist’s expertise and time for MTM and facilitates experiential rotations for students and residents

- **ALFA Specialty Pharmacy**
  - Provides pharmacist’s expertise and time for MTM and precepts students

- **Maryland Pharmacists Association**
  - Promotes and supports pharmacists professional development to enhance patient care and health outcomes

- **Delmarva Foundation for Medical Care QIO**
  - Works with teams on collection of data, aggregation and analysis of data, provides reports for HRSA and CMS, supports quality improvement process, and provides other technical assistance
Challenges

- Patient identification and referral
- Availability of interpretation service
- Availability of physician for consult
- Funding and resources
- Experiential preceptor/site development

Strategies

- Academic/physician detailing
- Model for improvement and change packet
- Pilot implementation for 6 months
- Leadership and staff support
- Multiple partnerships and collaborations
- Patient navigator and reminder
- MTM Documentation and Outcomes Tracking Tools (MTM-DOTT)

HRSA Patient Safety and Clinical Pharmacy Services Collaborative (PSPC)

- Aim to save and enhance thousands of lives a year by:
  - Achieving optimal health care outcomes
  - Eliminating adverse drug events
  - Increasing clinical pharmacy services

http://www.hrsa.gov/publichealth/clinical/patientsafety/index.html
What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

MTM Documentation and Outcomes Tracking Tools (MTM-DOTT): Medication History


MTM Documentation and Outcomes Tracking Tools (MTM-DOTT): Subjective & History Info.

Medication-Related Problems Prevalence

- Interventions: 36-Months Result (10/1/2009 to 9/30/2012)
  - # of patients: 215
  - # medications at visits: 1723 [average 8 meds/pt. visit]
  - # chronic conditions: 965 [average 4.5 conditions/pt.]
  - Medication-related problems: 554 [average 2.6 MRPs/pt.]
A Collaborative Effort Between the Patient and the Pharmacist

- What the Patient Need to Do Now?

<table>
<thead>
<tr>
<th>MTM MEDICATION-RELATED ACTION PLAN</th>
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<tbody>
<tr>
<td><strong>Medication</strong></td>
</tr>
<tr>
<td>Name:</td>
</tr>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>What action taken?</td>
</tr>
<tr>
<td>Notes:</td>
</tr>
<tr>
<td>What action planned?</td>
</tr>
</tbody>
</table>

Changes Leading to Impact

- Implementation of MTM Documentation and Outcomes Tracking Tools (MTM-DOTT)
- Provider-Identified Referrals
- Validation of Scheduled Appointments
- Application of MTM model and process
- Interprofessional Collaboration
- Multiple Partnerships
Assessment of IPE Experiences

Elena M. Umland, PharmD
Associate Dean for Academic Affairs
Professor of Pharmacy Practice
Jefferson School of Pharmacy
Thomas Jefferson University

Thomas Jefferson University
The Health Mentors Program

• The basics
  – Two-year, required longitudinal experience for all couples and family therapy, medical, nursing, occupational therapy, pharmacy and physical therapy students beginning in their first year
  – Student teams are assigned a health mentor
  – First cohort matriculated in the Fall of 2007

• Program goals
  – Illustrate the value of the contributions made by each member of the interprofessional healthcare team
  – Show the importance of the patient’s perspective and the value patient-centered care
  – Provide the opportunity for students to observe how a person’s health conditions and/or impairments interact with personal and environmental factors

• Four modules over 2 years
  – Comprehensive life and health history
  – Wellness planning
  – Patient safety
  – Self-management support and healthy behavior

Health Mentors Program Assessment Tools

• Cohort 1 and 2
  – Chronic Illness Survey (CIS) [C. Arenson and colleagues, 2008]
  – Interdisciplinary Education Perception Scale (IEPS) [L. Luecht and colleagues, 1990]
  – Readiness for Interprofessional Learning Scale (RIPLS) [M. Hojat and colleagues, 1999]
  – Physician–Nurse Collaboration Tool [D. Barnes and colleagues, 1999]

• Cohort 3
  – Added…
  – Attitudes Toward Healthcare Teams [S.2:3:4:2:4; Arenson and colleagues, 1999]
  – Readiness for Interprofessional Practice [S.3:3:4:2:4; Arenson and colleagues, 2000]
  – Reflection papers using prompts
  – Removed…

• Cohort 4
  – Added…
  – RIPLS

• Cohort 5
  – Added…
  – Student Stereotypes Rating Scale [D. Barnes and colleagues, 2000]
  – Removed…

• Cohort 6…
Reflections on the Health Mentors Assessment Program

- Robust...but
  - did it address what we needed it to address?
  - was it ‘too much’?
  - how is it all being managed?
  - is it at the expense of student learning?
Reflections on the Health Mentors Assessment Program

- Robust... and we learned that our students
  - ARE ready for IPE
  - DO learn about and better understand each others’ professions (as well as their own)
  - DO value the patient and the patient’s role in their care
  - DO have room to grow in better appreciating and respecting each others’ professions
  - DO want to provide patient-centered, collaborative care

Moving Forward: Assessment of IPE at Thomas Jefferson University

- Ensuring that there is ‘connection’ between what we are teaching and the practice sites where our students receive their clinical/practical education
- Creation / addition of questions on preceptor evaluations of students and student evaluations of preceptor/site

Moving Forward: Assessment of IPE Globally

- How do we know that, as a result of XYZ, our graduates will be competent in providing patient-centered collaborative care?
- Are we realizing improvements in patient outcomes as a result?
Assessment References


Interactive Session

- SWOT Analyses:
  - Strengths
  - Weaknesses
  - Opportunity
  - Threat

Concluding remarks

- Common themes among national IPE programs
- Standardized assessment tools
- ACPE Guidelines
- Reflection and Lessons learned
Thank you Curriculum SIG!