AACP Annual Meeting

July 14–18 • Kissimmee, Florida

American Association of Colleges of Pharmacy
Discover • Learn • Care: Improve Health
Interprofessional Education on Non-Academic Health Center Campuses

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AACP Annual Meeting
Objectives

• Identify challenges in implementation of interprofessional education for programs on non-academic health center campuses.

• Describe the use of a virtual world in conducting interprofessional patient care conference simulations.

• Describe the development of an interprofessional APPE in medicine.

• Overview of the highly interprofessional Faculty Scholars Program developed by the University of Alabama at Birmingham Geriatric Education Center.
What is interprofessional education and where does it belong?
Goal of Interprofessional Education

“The goal of these efforts is to develop knowledge, skills and attitudes that result in interprofessional team behaviors and competence.”

Burning et al. AJPE 2009;73(4) Article 59:2
Interprofessional education is defined as....

• “occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care.”¹

• “Interprofessional education involves educators and learners from 2 or more health professions and their foundational disciplines who jointly create and foster a collaborative learning environment.”²

1. Freeth et al. Effective Interprofessional Education: Development, Delivery & Evaluation
### ACPE - Accreditation Standards 2007 Guidelines 2.0

<table>
<thead>
<tr>
<th>Standard</th>
<th>Guidelines</th>
<th>Select Excerpts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission &amp; Goals</td>
<td>1.6</td>
<td>promotes development of <em>interprofessional</em> learning and collaborative practice in didactic and experiential education</td>
</tr>
<tr>
<td>Evaluation Mission &amp; Goals</td>
<td>3.2</td>
<td>In general, the evaluation plan should describe the: desired outcomes of the college or school’s mission and goals, including … <em>interprofessional education</em> …</td>
</tr>
<tr>
<td>Administrative Relationships</td>
<td>6.1; 6.2</td>
<td>The relationships, collaborations, and partnerships should advance the desired outcomes of the college or school’s mission and goals including … <em>interprofessional</em> education …</td>
</tr>
<tr>
<td>Governance; Deans Responsibilities</td>
<td>7.2; 8.2</td>
<td>In general, the responsibilities of the administrative leaders – individually or collectively – should include: … developing and evaluating <em>interprofessional</em> education and practice opportunities</td>
</tr>
</tbody>
</table>
As recommended by the *Institute of Medicine* for all health care professionals, pharmacists must be educated to deliver patient-centered care as members of an **interprofessional team**, emphasizing evidence-based practice, quality improvement approaches, and informatics.

The college or school must ensure that the curriculum addresses patient safety, cultural appreciation, health literacy, health care disparities, and competencies needed to work as a member of or on an **interprofessional** team.

function effectively as a member of an **interprofessional** care team

Colleges and schools are encouraged to develop **interprofessional** simulations and, if desired, should seek guidance from ACPE on appropriate simulation experiences to meet introductory pharmacy practice experiences program goals and objectives.
### ACPE - Accreditation Standards 2007 Guidelines 2.0

<table>
<thead>
<tr>
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<th>Select Excerpts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>27.1</td>
<td>facilities that encourage <em>interprofessional interactions</em> (e.g., simulation laboratories)</td>
</tr>
<tr>
<td>Financial Resources</td>
<td>30.2</td>
<td>Financial resources must be deployed efficiently and effectively to: enable innovation in education, <em>interprofessional activities</em>, research and other scholarly activities, and practice</td>
</tr>
</tbody>
</table>
Interprofessional Education – ACPE Standards

- Assessment
- Courses/Experiences
- Curriculum Goals, Competencies
- Relationships, Facilities, Resources
- Administration
- Mission & Goals
What is the status of interprofessional education?
Extent of IPE in Colleges of Pharmacy

Survey of 31 schools in 2007

- 53% had IPE
- 60% of the Schools had IPE are in P3 or P4
- 25% of the Schools had IPE in P1

Grice et al. AJPE 2008;72(3). Article 72
Inadequacy of Training Settings

“In many training settings, the institutional norms are such that authoritarianism, boundaries of practice, and silos among professional disciplines are strictly enforced, and further reinforced by payment systems. In such settings, the value of interdisciplinary teams will likely not be grasped by students.”

IOM. Health Professions Education: A Bridge to Quality. 2003
How does the non-academic health center setting contribute to the nature or opportunities for interprofessional education?
Working with a Partner on a Non-Academic Health Center is Common

Location of partnering institutions

• 31 colleges/schools of pharmacy on academic health center campuses

Burning et al. AJPE 2009;73(4) Article 60
Non-Academic Health Center Campuses and IPE

• Private Practice versus Academic Campuses
  – Mission
  – Educational Philosophy
  – Faculty compared to preceptors
  – Turf and control
  – Flexibility

• Multiple Health Educational Institutions
  – Organizational differences
  – Communication between institutions
  – IPE goals and strategy
  – Competition for student placement
How is interprofessional education structured and what are the optimal features?
IPE Competencies

- Values/Ethics
- Roles/Responsibility
- Interprofessional Communication
- Teams and Teamwork

Optimal Features of IPE

Pharmacy & Other Professions
- IPE must be a goal
- Champion - Faculty & Administrator
- Resources - time, personnel and dollars
- Faculty development
- Faculty rewards

Features of Plan
- IPE Team
  - Focused themes
  - Equivalent level of students to be involved
  - Clear as to the who, when, where
- Gradual implementation
- Informative assessment

Burning et al. AJPE 2009;73(4) Article 59:7
How do you implement interprofessional educational activities in a non-academic health center setting?
College of Pharmacy Step

- Commit to IPE at administrative and faculty level
- Include IPE in goals and outcomes
- Attain commitment of financial resources
- Identify champions of IPE

- Determine general plan for IPE development throughout the curriculum (start slow)
- Seek Partners
Working with Partners on IPE Activity

- Agree on desired outcomes
- Determine curricular placement
  - Course
  - Level of student
  - Required vs elective
  - Graded vs pass/fail
  - Number of students
  - Faculty leader
- Agree on approach
  - Simulation vs practice setting
  - Face-to-face, technology
  - Locations may include clinics, hospital, simulation centers, hospice site, classrooms/lab, schools
- Establish assessment
Challenges to IPE

• Scheduling
• Physical facilities
• Curricular turf
• Large amount of time
  – reported as up to 3X regular course preparation
• Lack of perceived benefit (faculty and students)
• Communication difficulties between professions
• Limited availability of other health professional students
• IPE goals not in common with partnering institutions

Smith et al. AJPE 2009;73(4) Article 61.
Kroboth et al. AJPE 2007;71(6) Article S19
IOM. Health Professions Education: A Bridge to Quality. 2003
Burning et al. AJPE 2009;73(4) Article 60
Opportunities from IPE

• Improve future practitioners
• Provide students with varied learning environments
• Form collaborative relationships with faculty in other health colleges
• Scholarship activities
Technology and Interprofessional Education

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South Dakota State University
Challenges to IPE

• Challenges
  – Physical facilities
  – Scheduling across multiple disciplines
  – Geographical separation

• Technology could help overcome some of the barriers to IPE delivery
Technology and IPE

• Asynchronous delivery
  – Advantages of convenience and flexibility
  – Disadvantages
    • Students are not interacting with each other in real time
    • Different group dynamic
Virtual Worlds

• Simulated environments and online communities
• Massively multiuser
• Use avatars to represent the users
• Communication via voice or text
• Use in higher education
  – Distance education
  – Educational simulations
Second Life

- Multiplayer virtual environment launched in 2003
- Basic accounts are free
- Residents are represented by avatars
- Several methods for communication (voice, chat, instant messaging)
Why Second Life?

• Allows for synchronous communication among participants
• Allows multiple methods of communication
• Simulate patient care conference environment
• Free for the students
Second Life and IPE

Objectives

◦ To examine the use of a virtual world in interprofessional education
◦ To understand student attitudes toward the use of online-based simulation in interprofessional education

Pilot study conducted in Spring 2011
Larger study completed in Fall 2011
Project Development

- Formed collaboration with administrators and faculty at partnering institutions

**South Dakota State University**
- Pharmacy
- Nursing
- Nutrition

**University of South Dakota**
- Physician Assistant
- Occupational Therapy
- Physical Therapy
- Social Work

**Dakota State University**
- Respiratory Care
http://www.merriam-webster.com/cgi-bin/nytmaps.pl?south_dakota
# Student Participants

<table>
<thead>
<tr>
<th>Pilot Study</th>
<th>Full Study</th>
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</thead>
<tbody>
<tr>
<td>Pharmacy (P1)</td>
<td>Pharmacy (P2)</td>
</tr>
<tr>
<td>Pharmacy (P3)</td>
<td>Nursing</td>
</tr>
<tr>
<td>Nursing</td>
<td>Nutrition</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>Physical Therapy</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>Occupational Therapy</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>Social Work</td>
</tr>
<tr>
<td></td>
<td>Respiratory Care</td>
</tr>
</tbody>
</table>
Case Design

- Cases involved elderly nursing home residents
- Designed by pharmacy faculty
- Included:
  - History and physical (including information on current issues)
  - Information for each profession – known only to that profession
- Case circulated to all instructors
  - Suggestions on history and physical
  - Profession specific information
IPE Sessions

- Students met in Second Life to discuss the case
- Pharmacy faculty members served as facilitators
- 4 to 7 students in each group
- Sessions lasted approximately an hour
Project Evaluation

- Session observation
  - Participation by individual group members
  - Overall team interaction
  - Ability of the team to identify and solve problems

- Pre-activity and post-activity surveys
Session Evaluation

- All students contributed at least once to the discussion
- Ability to identify and solve problems
  - Teams identified an average of 41% of the problems on their own
  - Identified an additional 43% with prompting from the facilitator and further team discussion
Session Evaluation

• Team functioning
  – 94% felt that their team functioned well or very well in the pilot study
  – 74% felt that their team functioned well or very well in the full study
# Session Evaluation

<table>
<thead>
<tr>
<th>Positive Aspects of Case Discussion</th>
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<tbody>
<tr>
<td>Gaining the perspective of other professions</td>
</tr>
<tr>
<td>Quality of discussion</td>
</tr>
<tr>
<td>Degree of participation</td>
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</tbody>
</table>
Student Comments

“Each individual was able to discuss existing and potential problems and provide ways that their profession can play a role in helping the patient. As the discussion continued, each individual was able to add more input and ask questions about concerns that the other professions may be more knowledgeable in.”

“I would have alone never thought of some of the problems that we did discuss as a team. It really highlighted to me the fact that all members of health care are needed for a correct diagnosis and treatment plan.”
### Challenging Aspects of Case Discussion

<table>
<thead>
<tr>
<th>Aspect</th>
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<tbody>
<tr>
<td>Technical issues</td>
</tr>
<tr>
<td>Missing information or perspectives</td>
</tr>
<tr>
<td>Differences in level of education</td>
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</tbody>
</table>
Use of Second Life for IPE

• Over 90% of the students had never used Second Life before
**Benefits of Second Life**

<table>
<thead>
<tr>
<th>Convenience and flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to interact with students from other professions and campuses</td>
</tr>
<tr>
<td>Interactive nature of Second Life</td>
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</table>
Student Comments

“I thought it was a lot more interactive than the regular discussion topics on D2L. It kept me a lot more interested as well.”

“It was nice to be able to feel like you were in a meeting setting.”
Session Evaluation

<table>
<thead>
<tr>
<th>Challenges of Second Life</th>
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</thead>
<tbody>
<tr>
<td>Technical issues</td>
</tr>
<tr>
<td>Learning how to use the program</td>
</tr>
<tr>
<td>Lack of nonverbal communication</td>
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</tbody>
</table>
Use of Second Life for IPE

- Technical issues
  - 89% reported experiencing technical problems with Second Life in pilot
  - 68% reported technical problems in the full study
Use of Second Life for IPE

• Technical Issues
  – Audio
  – Issues with Second Life viewer
  – Problems with computer or graphics
  – Problems with avatars
Advantages of Second Life

- Convenience
- Flexibility
- Interactive nature
- Multiple ways of communicating
- Simulated environment
Challenges

• Number of students in each health profession
• Scheduling
• Distributing information about the sessions to the students
Challenges

• Technical Issues
  – Audio
  – Issues with Second Life viewer/avatar
  – Graphics intensive program
• Most students had not used Second Life previously
• Lack of nonverbal communication
• Control over island
• Public nature of Second Life
Future Directions

• Future impact on interprofessional competencies

• Evaluate other technologies
Acknowledgements

• Funding provided by an SDSU AL Cloud Grant and District V NABP/AACP

• South Dakota State University
  – Jane Mort, Pharm.D.
  – Karly Hegge, Pharm.D.
  – Scout Forbes, Pharm.D.
  – Kendra Kattelmann, Ph.D., Health and Nutritional Sciences
Acknowledgements

• University of South Dakota
  – Brian Kaatz, Pharm.D.
  – Barbara Brockevelt, Ph.D., Occupational Therapy
  – Becca Jordre, DPT, Physical Therapy
  – Lana Svien, Ph.D., Physical Therapy
  – Wade Nilson, MS, Physician Assistant Studies
  – Jarod Giger, Ph.D., Social Work
  – Michael Lawler, Ph.D., Social Work

• Dakota State University
  – Bruce Feistner, MSS, RRT, Respiratory Care
Interprofessional Education on Non-Academic Health Center Campuses

A Case Study

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Birmingham, Alabama
Overview

- IPE is increasingly important for all healthcare professions
  - Mandated by accrediting organizations
  - Subject of increased study and review – from Medline:
    - “Interprofessional education” – 94,527 articles
    - “Interprofessional practice” – 9633 articles

- Some requirements of IPE include:
  - Champions / Resources
  - Relationship with other health professions
    - Campus
    - City
    - Region
  - Process
    - Curriculum redesign
    - Curriculum “tweak”
  - Faculty development
MSOP Stats

- Samford University has ~5000 students.
- MSOP has ~500 students – currently 128 per class.
- Curriculum redesign was implemented in 2009.
- Samford has Ida V. Moffett School of Nursing
- University of Alabama at Birmingham Medical Center is ~5 miles away.
Faculty Scholars Program

• Developed by the University of Alabama at Birmingham Geriatric Education Center (UAB GEC)
• Purpose: The HRSA UAB GEC Faculty Scholars Program (FSP) supports the training and retraining of faculty and preceptors in geriatric topics (themes) targeted to improve healthcare quality including advanced illness, frailty, care coordination, symptom management, and medication management. FSP scholars will learn geriatric content emphasizing health literacy and ethnogeriatric issues. This program provides the training necessary to incorporate culturally and linguistically sensitive geriatric principles into the scholar’s coursework and clinical programs.
UAB FSP

• Highly interprofessional in design, with faculty participants from dentistry, medicine, nursing, optometry, pharmacy, physical therapy, psychology, and social work
• Includes faculty from healthcare programs across the state
• Fourth cohort has completed the program
• Two Samford faculty have participated
Interprofessional Courses Developed

- Didactic geriatrics elective
- IPPE
  - Integration of pharmacy students into the interdisciplinary team (IDT) training exercise developed by UAB
- APPE
  - Birmingham VA Medical Center Home-Based Primary Care (HBPC) team
Geriatrics Elective

- Offered in the spring of the P3 year
- Topics to include:
  - Philosophy and overview of geriatric medicine (geriatrician)
  - Falls / Frailty (physician and occupational therapist)
  - Care in the home (nurse)
  - Importance of social support (social worker)
  - Geropsychiatry (psychiatrist)
  - Case discussions with an emphasis on medication therapy (pharmacist)
  - Interprofessional exercise at local nursing home in collaboration with a UAB geriatrician
- To be assessed with course evaluations and student surveys
IPPE IDT Exercise

- IDT was developed by UAB in 2009.
- Pharmacy students (P3) began participation during the 2011-12 academic year.
  - Two sessions are held, one in September and one in January.
  - This is a required exercise with half of the class participating in each session (129 students total this year).
  - Students receive four hours of IPPE credit.
- Students from eight other disciplines also participated this year: dentistry, medicine, nursing, nutrition, occupational therapy, optometry, physical therapy, and social work (442 students total)
IDT Structure

• Patient interview is conducted in auditorium with all students present.
  – One faculty representative from each discipline has five minutes to interview the patient.
• Students then break into groups of ~12 with a faculty facilitator.
  – Care plan is developed with input from all students in the group.
• Participants are surveyed at the end of each exercise.
IDT Survey

• The nine questions addressed:
  – Interview
    • Was informative
    • Increased my awareness
    • Could see how my discipline can contribute in a team
  – Small group session
    • Allowed understanding of how care is informed by multiple disciplines
    • Showed how my discipline can contribute to a care plan
    • Increased my confidence about participating in a team
  – IDT overall
    • Was valuable
    • Was relevant
    • I would recommend

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IDT Results

• When compared with the aggregate results of the other students, pharmacy students were significantly more positive about the experience across the board (p<0.001).

• Pharmacy responses ranged from 4.62 – 4.85 (on a scale of 1-5) vs. 4.15 – 4.48 for the other disciplines.

• The pharmacy students most strongly thought that the exercise showed how pharmacists can contribute in an interdisciplinary team setting (4.79) and how they as pharmacists can contribute to the development of a care plan (4.85).

• Survey data were reported in the MSOP school poster.
APPE – Home-Based Primary Care

• Highly integrated interprofessional team caring for approximately 160 home-bound patients in the Birmingham, Alabama area

• Disciplines represented:
  – Geriatrician (serves as Medical Director)
  – Geropsychiatrist
  – Nurse practitioner (doctorally trained)
  – RNs
  – Pharmacist
  – Occupational therapist
  – Social worker
  – Dietician (part-time)

• There is also a Program Director and administrative staff
Student Activities

• Students participate in home visits 3-4 mornings each week, spending time with team members from each discipline.
• Patient records are reviewed and medication issues identified prior to each visit.
• These issues, and any others identified during the visit, are resolved in consultation with the other team members who care for the patient.
• One afternoon a week there is a team meeting where all team members review patients seen that week and discuss other patients who have problems that need to be resolved.
Student Activities, continued

- Students write 3-6 pharmacotherapy progress notes for patients they have visited, and these are entered into the medical record.
- Students give a continuing education presentation for the team during one of the weekly staff meetings.
- Students field drug information questions from all members of the team.
- Feedback has been positive, and students seem to particularly enjoy the interaction with team members (and trainees) from the other disciplines.
Problems Encountered

• Identification of colleagues from other disciplines who are willing and/or able to collaborate in interprofessional education activities
• Question of honoraria
• Increased administration time necessary to coordinate interprofessional activities
  – APPE – scheduling students is time-consuming
  – IPPE – the IDT is very challenging to administer, but staff at UAB coordinate this
  – Didactic course – will be the most problematic to administer:
    • Coordination with other healthcare professionals
    • Restraints imposed by the structure of the curriculum
Any suggestions, comments, or advice from your experience would be very welcome!
IDT Disclaimer

This project is supported by funds from the Bureau of Health Professions, Health Resources and Services Administration, Department of Health and Human Services. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by the BHP, HRSA, DHHS or the U.S. Government.
Acknowledgements

- Samford University
  - Amy Broeseker, RN, PharmD, PhD
  - Michael Kendrach, PharmD, FASHP
- University of Alabama at Birmingham
  - Angela Rothrock, PhD
  - Patsy Sawyer, PhD
  - Channing Ford, MPA, MA
  - Christine Ritchie, MD, MSPH
Group Discussion

1. What are the strengths of non-academic health center campuses in regards to IPE?
2. What IPE activities are currently being utilized at your school?
3. What new IPE activities would you like to implement?
4. What barriers are preventing you from implementing these activities?
5. How can these barriers be overcome?
Special Session: Interprofessional Education on Non-Academic Health Center Campuses

CODE: CBL8T2