Role of interprofessional education in Clinical education: A study using clinical problem solving

A UNIQUE PERSPECTIVE IN BOTH DIDACTIC AND CLINICAL EDUCATION

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I / we have no relevant financial or nonfinancial relationship(s) within the products or services described, reviewed, evaluated or compared in this presentation.
Salus University
Salus University – An IPE Case Study

- Salus University founded in 1919 as the Pennsylvania College of Optometry
- Formally became Salus University on July 1, 2014
- Today we are composed of:
  - The Pennsylvania College of Optometry
  - The College of Education and Rehabilitation
  - The Osborne College of Audiology
  - The College of Health Sciences
  - The Offices of Research and Graduate Programs in Biomedicine
• **PCO to SU**
• **Single-purpose to multi-purpose institution**
• **Transformation parallels the shift for solo practice to group practice:**
  ○ Disadvantages of solo practice
  ○ Advantages of group practice
Salus University – An IPE Case Study

- Evolution of the institution’s mission statement

- Evolution from a “discipline orientation” to a “patient-centered” mission.
“The mission of the Pennsylvania College of Optometry is to graduate doctors of optometry, and offer other educational, research, and patient care programs responsive to the health care needs of the public.”
“The mission of Salus University is to protect and enhance health and well-being through education, research, patient care and community services worldwide.”
Salus University – An IPE Case Study
Salus University – An IPE Case Study

/sal·us/ noun. 1. health and well-being 2. conglomeration of optometry, audiology, education & rehabilitation, and health sciences – physician assistant
Salus University’s IPE Task Force

- Launched in September 2012
- Comprised of representatives from Salus’ colleges:
  - College of Education and Rehabilitation (CER)
  - College of Health Sciences (CHS)
  - Osborne College of Audiology (OCA)
  - Pennsylvania College of Optometry (PCO)
- Student member participant from OCA
- Charge to the IPE Task Force provided from then Vice President of Academic Affairs, Dr. Di Stefano
Inaugural Charge to the IPE Task Force

1. Develop a strategic vision for interprofessional education at Salus University
2. Conduct an audit of current IPE activities at Salus University
3. Identify at least one key project for FY 2012 - 2013
4. Establish outcome measures for campus IPE projects
5. Evaluate the feasibility of a scholarly article
In 1997, the Centre for the Advancement of Interprofessional Education (CAIPE) in London defined IPE as occasions when students from two or more professions in health and social care learn together during all or part of their professional training with the object of cultivating practice for providing client- or patient-centered health care.
IPE Task Force Vision Statement

To create, implement, and evaluate models that promote a culture of interprofessional education at Salus University that align with the University’s vision to be recognized nationally and internationally for excellence and innovation.

Accepted by the Salus University Academic Council
November 28, 2012
Clinical Problem Solving: IPE Initiative-A pilot study: Report
Introduction and background:

What is the role of IPE in professional colleges? Need for IPE within the professional colleges.
Background

- What is Problem-based learning approach?
- What is CPS?
- Why did we choose this course to pilot our IPE initiative?
One must reconsider what students really need to learn and the environment in which they learn. Much of the enthusiasm for the problem-based approach to learning comes from instructors who feel revitalized by the creative energy it releases.

Hal White, "Creating Problems' for PBL"
Traditional Learning

1. Told what we need to know
2. Memorize it
3. Problem assigned to illustrate how to use it

Problem Based Learning (PBL)

1. Problem assigned
2. Identify what we need to know
3. Learn and apply it to solve the problem
PBL-Process

- Problem
- Ideas
- Information
- Tasks
- Learning Issues
DO WE KNOW HOW TO WORK IN INTER-PROFESSIONAL TEAMS?
VIDEO
What is CPS at Salus University

- Integrative Approaches to Clinical Problem Solving
  Begins the first year *(Fall, Spring Terms)* and presents case discussions, exercises, group discussions and computerized applications aimed at facilitating students as they reason their way through clinical problems.

  The first year program is especially important in developing the skills necessary to make decisions based on the scientific literature, and the statistical validity and application of health data to the patient population *(Evidence-Based Medicine)*.
Purpose of the 5 week pilot study was to evaluate the following:

i. Does exposure to IPE, increase understanding of other professions in health care?
ii. Does early exposure to IPE enhance IP teamwork?
iii. Do our current metrics deliver meaningful information?
iv. What is the impact of IP student team leadership on IP curriculum design and efficacy, and on student teams?
Why did we choose CPS for our IPE Initiative?
PA, AuD and OD curriculum had CPS in their curriculum
STUDY PLAN

**Step 1**
Volunteer 1<sup>st</sup> year and 2<sup>nd</sup> year students recruited via email, 3 students from each program (OD, AuD, and PA)

**Step 2**
Week-1
Administer Pretest - IPE- questionnaires
Start the CPS process –Introduction -Diagnosis oriented
Study Plan –Contd.

Week-2 of CPS case
Diagnosis

Week-3 of CPS case.
Start Rehabilitation and Treatment discussions
Study Plan – Contd.

Week-4 of CPS case
Continue Rehabilitation and Treatment discussions

Week-5 of CPS case
Introduction to broader impact: Patient to population
Study Plan – Contd.

Week-5 of CPS case
Big picture: Patient to population (MPH) discussions.

Week-5 of CPS case
Complete post-IPE assessment.
Learning Objectives for the IPE-CPS

- Demonstrate knowledge of the roles, how to collaborate, when to refer.
- Initiate ongoing relationships within an interprofessional small group.
- Discuss how health policy reform will impact interprofessional teamwork.
- Explain the role of IPE as it relates to professionalism and continued professional development.
- Identify effective techniques for contributing opinions, insights and information to team problem-solving.
PRE & POST ASSESSMENT TOOLS


PURPOSE

i. Does exposure to IPE, increase understanding of other professions in health care

ii. Do our current metrics deliver meaningful information?

iii. What is the impact of IP student team leadership on IP curriculum design and efficacy, and on student teams?
Results

Following slides present the results based on average responses from both groups for each of the questionnaires used in the study.
## The UWE -IPE Questionnaire:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Average Score</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication and Teamwork</td>
<td>18.4</td>
<td>9-20 (Positive), 21-25 (Neutral), and 26-36 (Negative)</td>
</tr>
<tr>
<td>Interprofessional Learning</td>
<td>15.15</td>
<td>9-22, (Positive), 23-31, (Neutral) and 32-45 (Negative)</td>
</tr>
<tr>
<td>Interprofessional Interaction</td>
<td>19.675</td>
<td>9-22, (Positive), 23-31, (Neutral) and 32-45 (Negative)</td>
</tr>
<tr>
<td>Interprofessional Relationships</td>
<td>16.125</td>
<td>8-20, (Positive), 21-27 (Neutral), and 28-40 (Negative)</td>
</tr>
</tbody>
</table>
# The Interprofessional Education Perceptions Scale:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Average Score</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency &amp; Autonomy</td>
<td>8</td>
<td>7-9: Strongly Agree/Agree</td>
</tr>
<tr>
<td>Perceived need for cooperation</td>
<td>3</td>
<td>2-4: Strongly Agree/Agree</td>
</tr>
<tr>
<td>Perception of actual cooperation</td>
<td>8.475</td>
<td>6-12: Strongly Agree/Agree</td>
</tr>
</tbody>
</table>
Learning with other students / professionals will make me a more effective member of a health and social care team

Strongly Agree / Agree: 100%
Patients would ultimately benefit if health and social care students / professionals worked together

Strongly Agree / Agree: 100%
Shared learning with other health and social care students / professionals will increase my ability to understand clinical problems

Strongly Agree / Agree: 100%
Shared learning will help me to understand my own professional limitations

Strongly Agree / Agree: 90%

I would welcome the opportunity to work on small group projects with other health and social care students / professionals

Strongly Agree / Agree: 100%
Outcome measures and core competency domains
(based on core competencies for IP collaborative practice, report, 2011)

Domain 1: Values/ethics for interprofessional practice (IPP)
Domain 2: Roles / responsibilities of the IPP team
Domain 3: Interprofessional communication
Domain 4: Teams and teamwork: Patient to population

Strong positive perceptions and experience on the IPE – CPS activity on all the domains in both groups pre and post.
Sample Student Comments

- Learned a lot more about other professions.
- Loved thinking with other students.
- Motivated me to research areas that I did not know a lot about and may not have done it on my own if not for this project.
- The importance of how co-management is to patients.
- Loved the case.
- I learned that I do not need to know everything and how to co-manage patients.
Thank you!

Questions?