ON THE ROAD TO INTERPROFESSIONAL EDUCATION IN PEDIATRICS

APPD/COMSEP April 12 2013
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OBJECTIVES

Know the general competency framework for IPE as put forth by leading organizations and be able to describe specific competencies such as understanding roles and values of other professions.

Apply strategies which link the general competencies framework to existing curricular needs of medical schools and residency training programs (Pediatric Milestones)

Assess the existing, validated IPE evaluation tools against the Kirkpatrick’s hierarchy of evaluation.

Identify and list the objectives and educational methods for a pilot IPE exercise at their institution.
INTERPROFESSIONAL EDUCATION

“When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.”

World Health Organization 2010
1965 AAMC Coggeshall Report

1972 1st IOM Conference “Interrelationships of Educational Programs for Health Professionals”

2001 IOM “Crossing the Quality Chasm: A New Health System for the 21st Century”

2009 IPEC Core Competence for Inter-professional Collaborative Practice

2010 Canadian Interprofessional Health Collaborative (CIHC)

2013 APPD/COMSEP Conference
CORE COMPETENCIES FOR INTERPROFESSIONAL COLLABORATIVE PRACTICE
FIGURE 6: Interprofessional Collaborative Practice Domains

The Learning Continuum pre-licensure through practice trajectory
INTERPROFESSIONALITY

“These competencies together represent a pathway for professional development that the panel deems interprofessionalism: a pathway that will prepare students for intentional collaboration in the interest of better care for those we serve.”

Carol Aschenbrener, M.D.
Chief Medical Education Officer at the AAMC
ROLE OF EDUCATORS

“There is an inextricable link between what we do educationally and what we do in the delivery system, and we cannot change the delivery system without changing education,”

George E. Thibault, M.D.
President of the Josiah Macy Jr. Foundation
Peer Reviewed Publications

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Latest Publications
- The Health Mentors Program: A Longitudinal Chronic Illness Mentorship Program
- Interprofessional Standardized Patient Exercise (ISPE): The Case of “Paul Harris”
- Improving Interprofessional Understanding via Interprofessional Case Conferences
- Interprofessional Team-Based Learning Module: Depression
- Interdisciplinary Curriculum and Simulation Cases for Teaching Leadership and Communication to Medical Rapid Response Teams
- Sepsis in a Postpartum Patient - A Simulation Scenario for Interprofessional Education
- Small Group Exercise in Professionalism and Code of Ethics Development
- Interprofessional Geriatric Assessment Elective for Health Professional Students: A Standardized Patient Case Study and Patient Script
- Post Traumatic Stress Disorder: A Self-Directed Learning Module

News

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“The real challenge in IPE [and interprofessional functioning] is for [health care professionals] to be able to see the world through the eyes of other professions, to be able to frame the patient’s problem and the potential solutions to it in the terms of understanding of other kinds of health care providers.”

Phillip Clark
Director, University of Rhode Island
Program in Gerontology
## Table 1

Attitudes of 65 Internal Medicine Clerkship Directors Toward Interprofessional Education (IPE), From the 2009 Clerkship Directors In Internal Medicine Survey

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean (SD) response score</th>
<th>Strongly disagree or disagree</th>
<th>Neutral</th>
<th>Agree or strongly agree</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPE is important to internal medicine practice</td>
<td>3.91 (0.80)</td>
<td>3 (4.3)</td>
<td>15 (21.7)</td>
<td>47 (68.1)</td>
<td>4 (5.7)</td>
</tr>
<tr>
<td>IPE should occur in clinical curriculum</td>
<td>3.66 (1.03)</td>
<td>7 (10.1)</td>
<td>19 (27.5)</td>
<td>39 (56.5)</td>
<td>4 (5.7)</td>
</tr>
</tbody>
</table>

*Likert scale responses where 1 = strongly agree and 5 = strongly disagree.
<table>
<thead>
<tr>
<th>Item</th>
<th>Rasch Logits*</th>
<th>Model standard error</th>
<th>No. of respondents</th>
<th>No. (%) of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduling alignment</td>
<td>3.02</td>
<td>0.56</td>
<td>67</td>
<td>53 (79.1) 9 (13.4) 5 (7.5)</td>
</tr>
<tr>
<td>Time in existing curriculum</td>
<td>3.02</td>
<td>0.56</td>
<td>67</td>
<td>53 (79.1) 10 (14.9) 4 (6.0)</td>
</tr>
<tr>
<td>Resources (time and money)</td>
<td>2.93</td>
<td>0.57</td>
<td>67</td>
<td>51 (76.1) 9 (13.4) 7 (10.4)</td>
</tr>
<tr>
<td>Medical student belief in the value of IPE</td>
<td>0.22</td>
<td>0.42</td>
<td>67</td>
<td>20 (29.9) 21 (31.3) 26 (38.8)</td>
</tr>
<tr>
<td>Medical student Interest</td>
<td>0.12</td>
<td>0.41</td>
<td>67</td>
<td>22 (32.8) 22 (32.8) 23 (34.3)</td>
</tr>
<tr>
<td>Belief in the value of IPE by other professional students</td>
<td>−0.12</td>
<td>0.44</td>
<td>66</td>
<td>11 (16.7) 18 (27.3) 37 (56.1)</td>
</tr>
<tr>
<td>Interest of students in other professions</td>
<td>−0.82</td>
<td>0.47</td>
<td>66</td>
<td>10 (15.2) 21 (31.8) 35 (53.0)</td>
</tr>
<tr>
<td>Support from leadership of other professional schools</td>
<td>−1.49</td>
<td>0.44</td>
<td>67</td>
<td>12 (17.9) 34 (50.7) 21 (31.3)</td>
</tr>
<tr>
<td>Support from my department</td>
<td>−2.09</td>
<td>0.46</td>
<td>67</td>
<td>11 (16.4) 39 (58.2) 17 (25.4)</td>
</tr>
<tr>
<td>Appropriate partners of professional schools</td>
<td>−2.12</td>
<td>0.45</td>
<td>67</td>
<td>10 (14.9) 40 (59.7) 17 (25.4)</td>
</tr>
<tr>
<td>Support from medical school leadership</td>
<td>−2.67</td>
<td>0.50</td>
<td>67</td>
<td>9 (13.4) 45 (67.2) 13 (19.4)</td>
</tr>
</tbody>
</table>

Rasch logits are log odds units such that the larger (positive) logits represent difficult or formidable barriers, whereas smaller (negative) logits represent barriers which are more easily removed. Fit statistics were all within the acceptable range of −2.0 to +2.0.17
The Pediatrics Milestone Project

A Joint Initiative of

the Accreditation Council for Graduate Medical Education
and
the American Board of Pediatrics
Communicate effectively with physicians, other health professionals, and health-related agencies.
Work effectively as a member or leader of a health care team or other professional group.
Act in a consultative role to other physicians and health professionals.
SUB-COMPETENCY: PROFESSIONALISM

-Professional Conduct in interactions with patients, families, peers and colleagues
Work effectively in various health care delivery settings and systems relevant to their clinical specialty.
*SUB-COMPETENCY: SYSTEMS-BASED PRACTICE 2*

Coordinate patient care within the health system relevant to their clinical specialty.
Work in inter-professional teams to enhance patient safety and improve patient care quality.
SUB-COMPETENCY: SYSTEMS-BASED PRACTICE 7

Know how to advocate for the promotion of health and the prevention of disease and injury in populations.
Provide leadership skills that enhance team functioning, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients.
INOVA IPE PROJECT

Social Justice, Interprofessional Collaboration and Humanistic Medicine for Vulnerable Pediatric Populations

-2 year longitudinal curriculum (clinical years)
INOVA IPE PROJECT

Who are the learners?

- 3rd and 4th Year medical students from VCU School of Medicine
- Nursing and nurse practitioner students from George Mason University
- Social work students from George Mason University
What are the intended methods for implementation?
- monthly clinics for children/adults with disabilities
- Lectures and didactic instruction
- Literature: Journal articles, When the Spirit Catches You, You Fall Down, Out of My Mind, I Am Justice, Hear Me Roar
- Community visits: agencies, families/homes, school, locations with challenging access issues, therapy sessions, long term care facility etc.
- Experiential learning (guided imagery, view from a patient's bed, wheelchair for a day, language immersion and navigation, apply for a benefit/service and follow etc.)
- Reflective discussions and journal writing
- Social media and videos
- Standardized patients
HOPKINS IPE PROJECTS

- **Year 1 activities**
  - SON, SOM and Pharmacy
  - Zen Obelisk, Assumptions exercise
- **Daniel’s Scholars**
- **Year 3 activities**
  - Interprofessional Learning in Child Health
  - 2 modules developed to date
    - High fidelity simulation with TeamSTEPPS curriculum
    - A structured reflections exercise
ASSESSMENT IN IPE
At program level
At individual level
Primary Author: Robert Englander, MD, MPH

5. COMPETENCY: Work in interprofessional teams to enhance patient safety and improve patient care quality

### Developmental Milestones

- Seeks answers and responds to authority from only intraprofessional colleagues. Does not recognize other members of the interdisciplinary team as being important or making significant contributions to the team. Tends to dismiss input from other professionals aside from other physicians.

- Beginning to have an understanding of the other professionals on the team, especially their unique knowledge base, and is open to their input. However, still acquiesces to physician authorities to resolve conflict and provide answers in the face of ambiguity. This individual is not dismissive of other health care professionals, but she is unlikely to seek out those individuals when confronted with ambiguous situations.

- Aware of the unique contributions (knowledge, skills, and attitudes) of other health care professionals. Seeks their input for appropriate issues. As a result, is an excellent team player.

- In addition to the above features, individuals at this stage understand the broader connectivity of the professions and their complementary nature. Recognizes that quality patient care only occurs in the context of the interprofessional team. Serves as a role model for others in the interdisciplinary work and is thus an excellent team leader.
KIRKPATRICK’S MODEL OF EVALUATION

Level 2a - Learning: Modification of Attitudes or Perceptions

Level 2b - Learning: Modification of knowledge and/or skills

Level 3 - Behavior / Training Transfer
Did the participants change their behavior on-the-job based on what they learned?

Level 4 - Results
Did the change in behavior positively affect the organization?

Level 5 - Return on Investment
Was the training worth the cost?
WHAT TOOLS ARE AVAILABLE TO MEASURE IPE?

Limited information existed for the remaining measures. Despite the number of measures available for assessing and evaluating IPE and IPC, most lack sufficient theoretical and psychometric development.

Evaluating The Results Of These Learning Experiences
The sites found few published validated tools appropriate for evaluating the education innovations. Every site measured students’ react-
8 MEASURES FOR ASSESSING IPE AND IPC

- Readiness for Interprofessional Learning Scale (RIPLS)
- Interdisciplinary Education Perception Scale (IEPS)
- Index of Interdisciplinary Collaboration (IIC)
- Multidisciplinary Collaboration instrument (MDC)
- Interprofessional Perceptions Scale (IPS)
- Role Perceptions Questionnaire (RPQ) generic form
- University of Western England Interprofessional Questionnaire (UWE IQ)
- Modified Index of Interdisciplinary Collaboration (MIIC)
READINESS FOR INTERPROFESSIONAL LEARNING SCALE (RIPLS)

3 sub-scales:

- Teamwork & collaboration
- Professional Identity
- Roles and Responsibilities
1. Learning with other students will help me become a more effective member of a health care team.
2. Patients would ultimately benefit if health-care students worked together to solve patient problems.
3. Share learning with other health-care students will increase my ability to understand clinical problems.
4. Learning with health-care students before graduation would improve relationships after graduation.
5. Communication skills should be learned with other health-care students.
6. Shared learning will help me to think positively about other professionals.
7. For small group learning to work, students need to trust and respect each other.

8. Team-working skills are essential for all health care students to learn.

9. Shared learning will help me to understand my own limitations.

Professional Identity
10. I don’t want to waste my time learning with other health-care students.
11. It is not necessary for undergraduate health-care students to learn together.

12. Clinical problem-solving skills can only be learned with students from my own department.

13. Shared learning with other health-care students will help me to communicate better with patients and other professionals.
14. I would welcome the opportunity to work on small-group projects with other health-care students.
15. Shared learning will help to clarify the nature of patient problems.
16. Shared learning before graduation will help me become a better team worker.

Roles and Responsibilities
17. The function of nurses and therapists is mainly to provide support for doctors.

18. I’m not sure what my professional role will be.
19. I have to acquire much more knowledge and skills than other health-care students.
INTERPROFESSIONAL EDUCATION PERCEPTION SCALE (IEPS)

4 subscales:

- Competence/Autonomy
- Perceived Need for Cooperation
- Perception of Actual Cooperation
- Understanding others values
INTERDISCIPLINARY EDUCATION
PERCEPTION SCALE

1. Individuals in my profession are well trained.
2. Individuals in my profession are able to work closely with individuals in other professions.
3. Individuals in my profession demonstrate a great deal of autonomy.
4. Individuals in other professions respect the work done by my profession.
5. Individuals in my profession are very positive about their goals and objectives.

6. Individuals in my profession need to cooperate with other professions.
7. Individuals in my profession are very positive about their contributions and accomplishments.
8. Individuals in my profession must depend on the work of people in other professions.
9. Individuals in other professions think highly of my profession.
10. Individuals in my profession trust each other’s professional judgment.
11. Individuals in my profession have higher status than other professions.

12. Individuals in my profession often make every effort to understand the capabilities and contributions of other professions.
13. Individuals in my profession are extremely competent.
14. Individuals in my profession are willing to share information/resources with other professions.
15. Individuals in my profession have good relations with other professions.

16. Individuals in my profession think highly of other related professions.
17. Individuals in my profession work well with each other.
18. Individuals in other professions often seek advice of people in my profession.
UWE INTERPROFESSIONAL QUESTIONNAIRE

- Four scales
  - **Communication and Teamwork Scale** - through which students assess their communication and teamwork skills
  - **Interprofessional Learning Scale** - which explores students’ attitudes towards interprofessional learning
  - **Interprofessional Interaction Scale** - exploring students’ perceptions of interaction between different health and social care professionals
  - **Interprofessional Relationships Scale** - which concerns students’ perceptions of their relationships with health and social care colleagues from both their own and other professional disciplines
TEAMWORK MEASURES

- **Team Performance Survey**: can be used to measure the quality of team or small group interactions (PBL TBL)
- **Attitudes Toward Health Care Teams**
- **Team Skills Scale**: measure team skills in interprofessional team care settings
- **TeamSTEPPS**
  - Teamwork Attitudes Questionnaire
  - Team Performance Observation Tool
TELE PERFORMANCE SURVEY

1. All team members made an effort to participate in discussions.
2. When team members had different opinions, each member explained his or her point of view.

3. Team members encouraged one another to express their opinions and thoughts.

4. Team members shared and received criticism without making it personal.
5. Different points of view were respected by team members.
6. Often members helped a fellow team member to be understood by paraphrasing what he or she was saying.
7. My team used several techniques for problem solving (such as brainstorming) with each team member presenting his or her best ideas.
8. Team members worked to come up with solutions that satisfied all members.
9. All team members consistently paid attention during group discussions.

10. My team actively elicited multiple points of view before deciding on a final answer.

11. Team members listened to each other when someone expressed a concern about individual or team performance.
12. Team members willingly participated in all relevant aspects of the team.

13. Team members resolved differences of opinion by openly speaking their mind.

14. Team members used feedback about individual or team performance to help the team be more effective.
15. Team members seemed attentive to what other team members were saying when they spoke.
16. My team resolved many conflicts by compromising between team members, with each one giving in a little.
17. Members who had different opinions explained their point of view to the team.
18. Team members were recognized when something they said helped the team reach a good decision.
ATTITUDES TOWARD HEALTH CARE TEAMS SCALE

1. Working in teams unnecessarily complicates things most of the time
2. The team approach improves the quality of care to patients
3. Team meetings foster communication among team members from different disciplines
4. Physicians have the right to alter patient care plans developed by the team
5. Patients receiving team care are more likely than other patients to be treated as whole persons
6. A team's primary purpose is to assist physicians in achieving treatment goals for patients
7. Working on a team keeps most health professionals enthusiastic and interested in their jobs
8. Patients are less satisfied with their care when it is provided by a team
9. Developing a patient care plan with other team members avoids errors in delivering care
10. When developing interdisciplinary patient care plans, much time is wasted translating jargon from other disciplines
11. Health professionals working on teams are more responsive than others to the emotional and financial needs of patients
12. Developing an interdisciplinary patient care plan is excessively time consuming
13. The physician should not always have the final word in decisions made by health care teams
14. The give and take among team members help them make better patient care decisions
15. In most instances, the time required for team meetings could be better spent in other ways
16. The physician has the ultimate legal responsibility for decisions made by the team
17. Hospital patients who receive team care are better prepared for discharge than other patients
18. Physicians are natural team leaders
19. The team approach makes the delivery of care more efficient
20. The team approach permits health professionals to meet the needs of family caregivers as well as patients
21. Having to report observations to the team helps team members better understand the work of other health professionals
OTHER THINGS TO MEASURE

- Student Stereotype Rating Questionnaire
- Observer based rating using a structured tool to measure specific observable behaviors (T-OSCE)
- Patient outcomes? (Level 4)
REFERENCES

