Interprofessional Education: Measuring Outcomes

Julie Estis
Kim McCullough
Sarah E. Wallace

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What is IPE?

- IPE refers to the term "interprofessional education."
- Defined by the World Healthcare Organization, IPE is "when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes." (2010)

Resources

National Center for Interprofessional Practice and Education

Overview of Frequently Used Quantitative Assessments

- RIPLS (Readiness for Interprofessional Learning Scale)
- IEPS (Interdisciplinary Education Perception Scale)
- ICS (Interprofessional Collaboration Scale)

Core Competencies

(Interprofessional Education Collaborative Expert Panel, 2011)

RIPLS

- Description:
  - 15 item test with 5 point scale
  - 4 subscales
    - Teamwork and Collaboration
    - Negative Professional Identity
    - Positive Professional Identity
    - Roles and Responsibility
RIPLS

IEPS

- Interdisciplinary Education Perception Scale
- Description:
  - 18 item test with a 5 point scale
  - Measures student perceptions of interprofessional education experiences
  - Subscale that measures perception of interdisciplinary practice

(Hayward et al., 2005)

ICS

- Interprofessional Collaboration Scale
- Description:
  - 13 item test
  - Used to assess three constructs: communication, accommodation, and isolation
  - Created for multiple groups to assess other groups in the healthcare profession

(Kenaszchuk, Reeves, Nicholas, & Zwarenstein, 2010)
FEEDBACK from Investigators

- Mahler et al., 2014
  - Overall reliable. The subscale of "roles & responsibilities" inconsistent when used with students at different stages (UG v. Grad)
- Baxter, 2004
  - Differing results using the RIPLs vs. Qualitative Feedback from students.
- Suarez & Koole, 2014
  - Neither the RIPLs or the IEPS may be ideal for detecting change in small groups (N=15)
- Cameron et al., 2009
  - Assessed 1000 first-year health science students; IEPS used to demonstrate shifts in attitudes after single intervention; Qualitative questions also helpful

Examples of Specifically Developed Tools
from University of South Alabama

- Interprofessional Care for Tracheostomy Patients with Passy-Muir Valves
  - SLP
  - Respiratory Therapy
  - Nursing

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<thead>
<tr>
<th>Pretest</th>
<th>SSRQ</th>
<th>Impressions</th>
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<tr>
<td>Training</td>
<td>• Web-based training on PMV</td>
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<td>Simulation</td>
<td>• Acute care environment with high-fidelity simulator as patient and a standardized patient as family member</td>
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<td></td>
<td>• Case history information and physician orders were provided</td>
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<td>Debriefing</td>
<td>• Faculty facilitated</td>
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<td></td>
<td>• Reflective evaluation of clinical skill performance and collaborative care</td>
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Pretest | SSRQ | Impressions

Posttest
Examining Professional Stereotypes in an Interprofessional Education Simulation Experience

Student Stereotype Rating Questionnaire (SSRQ)

Participant ID (last 4 digits of J#): _________________

Department: SLP

How would you rate Speech-Language Pathologists on:

1. Very High
2. High
3. Medium
4. Low
5. Very Low

Academic ability
Professional competence
Interpersonal skills (e.g. warmth, sympathy, communication)
Leadership abilities
The ability to work independently
The ability to be a team player
The ability to make decisions
Practical skills
Confidence

How would you rate Nurses on:

Academic ability
Professional competence
Interpersonal skills (e.g. warmth, sympathy, communication)
Leadership abilities
The ability to work independently
The ability to be a team player
The ability to make decisions
Practical skills
Confidence

Impressions Survey

Safe Medication

Pre/post test
Impressions survey
Standardized patient feedback

Example of Progression of Tools

From Duquesne University

Example of Progression of Tools

Year 1
• Interdisciplinary Education Perception Scale (IEPS)

Years 2 & 3
• Created questionnaires related to activity goals
• Year 3 – Follow-up Questions

Year 4
• Created new questionnaire & Readiness for Interprofessional Learning Scale (RIPLS)

Years 1-4
• Open-ended Questions

Revised Questionnaire

• Evaluation and design of intervention
  • Swallowing
  • Cognition
  • Communication
  • Hemiparesis
  • Gait
  • Sleep Disorders
  • Visual perception
  • Aspects of Mental Health
• Coordinating services
• Monitoring bodily functions during acute care
• Designing medical interventions
• Designing wellness programs
• Public transportation access

Years 2 & 3 Created Questionnaires

• True/False Stroke Content Questions
  • A stroke is a chronic condition
  • Identification of level of involvement in stage of care:
    • Prevention, diagnosis, acute & chronic management of needs & treatment, rehabilitation
    • No involvement → substantial involvement (4)
Based upon their education and training, identify all of the professional(s) who have a primary role in the following area of stroke care:

Developing and implementing an intervention to allow patients to take public transportation including aspects of communication, cognitive, and physical mobility.

a. Athletic Trainer
b. Health Systems Manager
c. Nurse
d. Occupational Therapist
e. Pharmacist
f. Physician Assistant
g. Physical Therapist
h. Speech-Language Pathologist

Example Question

Based upon their education and training, identify all of the professional(s) who have a primary role in the following area of stroke care:

Designing and implementing interventions for visual and visual perception deficits.

a. Athletic Trainer
b. Health Systems Manager
c. Nurse
d. Occupational Therapist
e. Pharmacist
f. Physician Assistant
g. Physical Therapist
h. Speech-Language Pathologist

Examples of Open-end Questions

• In what ways did members from various disciplines contribute during the small groups?
• Describe any differing opinions that emerge related to the patient questions or plan of care?
• How have your perceptions regarding the roles and responsibilities of other health care professionals changed following this activity?

Examples of Follow-up Questions

7. Describe how you believe the workshop affected your view of other healthcare professions. Either specific or general comments are welcome.

8. Reflecting on the Workshop – you completed preparatory activities, you met a patient and his family, developed patient questions within small interprofessional groups, asked patient questions and listened to answers to other students’ questions, developed a patient plan of care, and reflected on the workshop experience in a large group.

a. Which 3 elements of the workshop were most valuable for your future clinical experiences?

Examples of Follow-up Questions

10. Interprofessional education seeks to address these four areas of learning:

• Values & Ethics for Interprofessional Practice
• Roles & Responsibilities
• Interprofessional Communication
• Teams and Teamwork

Which of these is most important for your future clinical practice? Why?

Which of these is least important for your future clinical practice? Why?

Which of these do you believe were addressed in the IPE Workshop?
Select Resources & References

- National Center for Interprofessional Practice and Education
  - https://nexusipe.org/measurement-instruments

- Core Competencies for Interprofessional Collaborative Practice
  - http://www.aacn.nche.edu/education-resources/ipecorepdf


