MEDICAL AND PHARMACY STUDENTS SHADOWING ADVANCED PRACTICE NURSES (APNs) TO DEVELOP INTERPROFESSIONAL COMPETENCIES

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**Nature and Scope**

- Miscommunication among healthcare providers contributes to 80% of serious medical errors, resulting in 210,000 deaths and losses of $12 billion annually.
- Poor patient satisfaction levels, reduced collaboration, poor teamwork, and increased adverse patient outcomes are related consequences.
- Lack of role awareness/responsibilities among health care providers contributes to miscommunication.

**Purpose of project:** Implement evidence-based job-shadowing strategy to develop medical and pharmacy students’ interprofessional knowledge about Advanced Practice Nurses (APNs) related to: 1) role awareness, 2) collaboration and 3) communication.

**Synthesis of Literature**

Educational strategies for developing interprofessional collaborative practice (ICP) competencies as defined by Interprofessional Education Collaborative (IPEC) analyzed:

- Job-shadowing improves ICP:
  - Increased understanding of team member roles.
  - Diminished stereotypical thinking about other providers.
  - Promotion of team building.
  - Potential aversion of future professional conflicts.
- Theoretical Framework: Complex Adaptive Systems
- Interrelates collaboration & multidirectional communication
- Strong emphasis on teamwork

**Project Implementation**

**Participants:**
- 40 participants from 93 eligible students:
  - 20 Medical (M2) and 20 Pharmacy (P3) students
  - 73% age 22 – 25 years old
  - 60% White, 23% Asian/Pacific Islander, 17% Black/AA
  - 55% female, 45% male
- 9 APN mentors

**Setting:**
- 3 APN clinical sites

**Project Process:**
- APN mentors were oriented on job-shadowing experience
- 20 M2 - P3 student dyads completed one 4-hour APN job-shadowing observation & reflective discussion

**Strategies used to increase likelihood of project success:**
- Face/face in-class project explanation & recruitment
- Email and phone reminders to students
- Meeting with key stakeholders & relationship building

**Evaluation Criteria**

**Outcome Evaluation:**
- **Quantitative (pre/post IPE experience online survey):**
  - Student: Knowledge of APN roles
  - Student: Knowledge of interprofessional collaborative team practices
- **Qualitative:**
  - Student: Reflection of IPE experience
  - System: Participating colleges and clinical partners interest in ongoing implementation

**Data analysis:**
- Quantitative: Descriptive statistics & paired sample t-tests
- Qualitative: Thematic Content Analysis

**Outcomes**

**Mean change in knowledge** from pre job-shadowing survey to post job-shadowing survey (paired t-tests, significant at $p < 0.001$; * $p < 0.048$)

<table>
<thead>
<tr>
<th>IPE Competency</th>
<th>Question Content</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role</td>
<td>APN educational program</td>
<td>1.80</td>
<td>2.80</td>
</tr>
<tr>
<td>Differences</td>
<td>APNs scope of practice</td>
<td>2.18</td>
<td>3.08</td>
</tr>
<tr>
<td>Between APN</td>
<td>APNs role in health care team</td>
<td>2.28</td>
<td>3.13</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Between APN/Physicians</td>
<td>1.23</td>
<td>2.95</td>
</tr>
<tr>
<td>Communication</td>
<td>Perception of quality communication between APNs/MDs</td>
<td>2.53</td>
<td>2.78</td>
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</tbody>
</table>

**Key Attitudes unchanged (post-survey percentages):**
- Interprofessional relationships competencies should be developed during pre-clinical and clinical education (91.5% agree/strongly agree)
- Present education prepared them for interprofessional collaboration (43% excellent/somewhat prepared)
- Job-shadowing useful part of curriculum (93% agree/strongly agree)

**Student Qualitative Results:**

- Observing how APN interacts with patients and physicians...interaction I would otherwise never get to see – we [pharmacy/medical students] barely interact among ourselves.
- "Strength of this experience is to see how APNs work."

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