Engaging Student Pharmacists in Professional Service and Professional Development Through Introductory Pharmacy Practice Experiences (IPPEs)

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Background
Introductory pharmacy practice experiences (IPPEs) have become a larger portion of today’s doctor of pharmacy curriculum.1 Engaging students in professional service and professional development may enhance student pharmacists’ ability to gain not only the knowledge and skills of the profession, but also the values and attitudes of a professional.

Objectives
1. Explain the organization of the IPPEs at The University of Iowa (UIowa)
2. Describe an innovative strategy of incorporating aspects of professionalism and public health into IPPEs
3. Evaluate professional service and professional development experiences of first year student pharmacists during their IPPEs

Methods
The layout of the curriculum for the IPPEs at UIowa is described in Figure 1. As part of the IPPEs, student pharmacists are required to gain experience through professional service and professional development in a variety of venues. Data regarding IPPE 4 were collected from August 2007 through June 2008. Students recorded participation in a computer database. Students had their participation verified by a pharmacist or faculty on site. One hour of patient contact time, educational seminar, or meeting equaled one hour of credit. The types of professional service and professional development experiences students have encountered during the first year of the program are quantified and described.

Objectives (See Figure 1)
IPPE 1: Students shadow a pharmacist in 5 different practice settings. A discussion and written reflection occur every three weeks. The student's faculty mentor provides feedback on the reflections.

IPPE 2: Students participate in the provision of care in a hospital and a community pharmacy setting. Each student spends three weeks (full-time) in a community pharmacy and two weeks (full-time) in a hospital pharmacy. This takes place during the winter break and/or the summer before or after the P-2 year. Students complete written assignments and participate in discussions led by faculty.

IPPE 3: Each P-3 student works with a P-4 student completing an advanced practice patient care experience. Each student prepares a case write-up, presents the case to a faculty member, writes a SOAP note for the care suggested, and identifies drug information inquiries from the case.

IPPE 4: Each student completes hours in two areas, leadership/professional development activities and professional service activities. Students write a reflective learning assignment at the end of each year and receive feedback from their faculty mentor.

Results from Evaluation of IPPE 4
109 of 112 P-1 student pharmacists participated in either professional development or service activities during the initial year of the program. Professional development activities far exceeded service activities (see Figure 2).

P-1 student pharmacists provided service in a variety of settings (see Figure 3). Student pharmacists spent a majority of time participating in various health screenings and in underserved clinics.

P-1 student pharmacists engaged in a broad range of professionalism and leadership activities (see Figure 4). Student pharmacists obtained the majority of the professional development hours by attending meetings hosted by the college of pharmacy which included speakers from a variety of practice settings and backgrounds.

Conclusion
First year student pharmacists were able to identify and participate in numerous and diverse experiences. These activities allowed the student pharmacists to better acquaint themselves with the profession of pharmacy, public health needs and the role of pharmacists in addressing these needs.

P-1 student pharmacists’ comfort level with providing patient care services and availability of activities may have contributed to the low number of service hours.

The structure of the IPPE 4 experiences encouraged student pharmacists to engage with practitioners in professional activities early in their curriculum.

The overall impact of these new IPPEs on student professional behaviors and engagement is yet to be determined.

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Figure 1: Organization of IPPEs

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<tr>
<th>IPPE 1: Intro to Pharmacy Practice</th>
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<tbody>
<tr>
<td>ShADOWING EXPERIENCE IN 5 AREAS OF PHARMACY PRACTICE</td>
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<tr>
<td>COMMUNITY HOSPITAL</td>
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<tr>
<td>AMBULATORY CARE</td>
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<td>ACUTE CARE MEDICINE</td>
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<td>ELECTIVE</td>
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<th>IPPE 2: General Practice</th>
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<tr>
<td>CONCENTRATED EXPERIENCE DURING SUMMER AND/OR WINTER BREAK</td>
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<tr>
<td>COMMUNITY PHARMACY</td>
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<td>HOSPITAL PHARMACY</td>
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<th>IPPE 3: Clinical Practice Experience</th>
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<td>P4 STUDENT IN PATIENT CARE EXPERIENCE</td>
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<tr>
<th>IPPE 4: Professional Service and Professional Development</th>
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<td>EXPERIENCE OBTAINED BY PARTICIPATION IN SERVICE LEARNING AND LEADERSHIP/PROFESSIONAL LEARNING</td>
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Figure 2: Number of Activities Completed by Students (Total = 787 activities)

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<thead>
<tr>
<th>Students</th>
<th>Professional Development</th>
<th>Professional Service</th>
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<tbody>
<tr>
<td>65</td>
<td>186</td>
<td>562</td>
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Figure 3: Professional Service Hours (Total = 239.5 hours)

- Underserved Mobile Clinic
- Overall Health Screening*
- Influenza Clinic
- Diabetes Screening
- Katy’s Kids Poison Prevention
- Pharmacy Awareness**
- Continuity of Care***
- Osteoporosis Screening
- Cardiovascular Health Screening

*Includes multiple screenings (e.g., cardiovascular, rheumatoid, and diabetes)
**Promoting professionalism to high school students
***Assisting Seniors with MediCards

Figure 4: Professional Development Hours (Total = 1064 hours)

- Speaker On-Campus
- Speaker Off-Campus
- Iowa Pharmacy Association (IPA) Legislative Day
- Interviews for Potential Student Pharmacists
- Regional Meeting*
- IPA Student Leadership Conference
- Leadership Office Activities
- Etiquette Dinner

*Country and State Association Meetings
**APhA-ASP PHiK Kappa Psi Conclave

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