INTEGRATING CO-OPERATIVE EDUCATION AND REGIONAL PATIENT CARE ROTATIONS: A NOVEL APPROACH TO EXPERIENTIAL LEARNING

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OBJECTIVES

Understand key lessons learned in changing a well established Pharmacy Co-operative Education program to a “hybrid” model by building on co-op’s success.

• How paid work-based learning early in the curriculum sets the stage for final year regional patient care rotations.

• How to leverage student scope of practice, geographic dispersal of students and regional teaching support to establish, maintain, and even develop a practice site surplus.

• Key lessons regarding how coordination between two very different, yet complementary, experiential platforms has enhanced employer/supervisor satisfaction and student preparedness.
WATERLOO PHARMACY OVERVIEW – BSCPHM (2008-2014)

• Four year BScPhm program, opened its doors in 2008
• Students needed minimum 2 years of university science prerequisite courses
• Full year program (3 terms per year) – students always in an academic or co-op term
• First class graduated in 2011
1. **Community Service Learning**
   Year I: 6 month group volunteer project with a local community agency

2. **Co-operative Education “C”**
   Years I-III: 4 x 4 month work terms

3. **Clinical Capstone**
   Year IV: Regional Medication Management Clinic, each student 6 days (one day/week)
CO-OP SUCCESS

• Up to Spring 2014 – average of 20% more jobs than students (including Fall – double cohort!)

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<tbody>
<tr>
<td>Jobs/Students</td>
<td>1.31</td>
<td>1.39</td>
<td>1.11</td>
<td>1.20</td>
<td>1.29</td>
<td>0.80</td>
<td>1.28</td>
<td>1.11</td>
<td>0.99</td>
<td>1.47</td>
<td>1.18</td>
<td>1.20</td>
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TRANSITION FROM BSCPHM TO PHARMD

• Doctorate of Pharmacy (PharmD) approved in 2014 as entry to practice degree

• Program Accreditation Requirements – 960 hrs of Direct Patient Care (DPC)

• How do we change our experiential program?
  » Co-op only? - Change 1 co-op work term to only DPC?
  » Rotation only? – no more co-op?
  » Hybrid? - Co-op + Rotation?
THE MODEL:

Assess

- Waterloo's philosophy of Co-op paid work-terms has been very effective and well received by students and employers.
- Work terms did not deliver DPC consistently, particularly for the weaker students.
- Which model was more or less confusing for employers?
- What evidence of effectiveness was there for the various models?

Listen

- What do prospective Clinical Preceptors want? What do current co-op supervisors want? What do students want? What would accreditation find acceptable? What do experts in the co-op field think about the options?
- “Roadshow” Tour of Ontario - using every available venue to meet the School’s partners in person!
THE MODEL: FEEDBACK

- Employers loved co-op!! Patient care rotations could be complementary but could never replace it.
- Co-op served the non-GTA (including underserved) Ontario pharmacies, preceptors were eager for students!
- Rotation length, flexibility in scheduling (PT or “co”-preceptor) important
- Don’t confuse current co-op model, no evidence of hybrid model
- Important to have adequate support from the School support – central and local support & resources for new rotations
- Training, networking, shared learning opportunities
The Informed Plan

- Region based **Patient Care Rotations**, using the **Community of Practice Model**

- Something **different, yet complementary** to Co-op

- Student outcome assessment builds from Co-op through Rotations and mapped back to educational outcomes

*To read more about communities of practice try:
EXPERIENTIAL LEARNING AT WATERLOO 2015 ONWARDS

• Community Service Learning “CSL”

• Co-operative Education “Co-op” – three 4-month work terms (anywhere) in first 3 years of program – reduced from 4

• Patient Care Rotations in a “Community of Practice” – three 8 week direct patient care rotations in 4th year of program (in 14 regions throughout Ontario)
SEQUENCE OF TERMS

Year 1: A (Academic term)
Year 2: A (Academic term)
Year 3: C (Co-op work term)
Year 4: A (Academic term)

Community Service Learning milestone

Fourth-year patient care rotations:
- 8 weeks: Classroom
- 8 weeks: Patient care rotation 1
- 8 weeks: Patient care rotation 2
- 8 weeks: Patient care rotation 3
- 8 weeks: Classroom

School of Pharmacy
“LEVERAGE YOUR GEOGRAPHY”

- Three 8-week direct Patient Care Rotations all within the same region
- Learn from and provide care within a region’s interconnected health care system
- Opportunity to support a region’s Community of Practice
CO-OP AT A GLANCE POST PHARMD

• Waterloo remains the only Co-op pharmacy program in Canada and one of only two in North America

• The School of Pharmacy has benefited from the University of Waterloo’s well established Co-op infrastructure

• Students complete three 16-week paid work terms in years two and three of the program

• Opportunity for students to gain valuable early-mid curricular practice experience in a wide variety of settings throughout Ontario, nationally, and internationally

• Co-op ≠ “summer job” (Inventory of Skills – assessment of specific competencies over the course of three co-op work terms)
CO-OP AT A GLANCE

Community Practice

Hospitals

Family Health Teams

Industry
Research, Informatics, etc.

Government & Regulators

School of Pharmacy
Implementing sustained late-curricular Patient Care Rotations together with an already established Co-operative Education based program
“ATTRACTING THE BEST TALENT”

“LEVERAGE YOUR LOCAL SUPERSTARS”

• We listened and heard that local support and resources were important to our partners especially in “underserved communities of practice”.

• We also had to recruit practice sites/preceptors for over 360 Patient Care Rotations (in addition to maintaining Co-op)

What could this look like? Who would we look to?
THE RESOURCES:

The Regional Clinical Coordinator (RCC)

- 14 (one for each region)
- Mix of hospital, community, family health team, and long term care pharmacists
- Adjunct Faculty – Adjunct Clinical Assistant Professor (paid 0.2FTE)

Job Description
- Recruit and retain high quality practice sites/preceptors – “local Superstars”
- Facilitate regional preceptor training and ongoing development
- Act as local point of contact for students in preparation for and throughout Patient Care Rotations
- ??? – novel position, the role continues to develop (research, local support for online courses, etc.)
Lessons Learned:

• Must still maintain an adequately resourced administrative office to support the RCCs

• Unique allocation of faculty resources – support and flexibility of senior administration and well rounded/collaborative experiential leaders is a must
THE STUDENT:

- Transparency throughout the process
- Involve students to the greatest extent possible – Student Experiential Advisory Committee (SEAC)
- Students had history of work terms being geographically diverse
- Regional Showcase - RCC led event at the School, promote clinical rotation opportunities within their region
THE STUDENT:

Lessons Learned:

- Open process = Flaws Exposed
- Be prepared to answer questions (many!) and adjust the process when appropriate
- Giving students an opportunity to learn about different regions (RCC Showcase), plan, and ask questions, yielded the following*:
  - 50% of students were matched to their first choice
  - 80% of students were matched to one of their top three
  - Less than 25% of students ranked Greater Toronto Area as their first choice
- RCCs and the “power of the sell” – students genuinely interested in unique experiences (rural, northern, etc.) under the guidance of a locally-based RCC

*Results based on Class of Rx2016 student ranking
THE NUMBERS:

• Would the transition to a PharmD (first professional degree program) and the addition of sustained late curricular Patient Care Rotations (unpaid) impact access to high quality Co-op (paid) work term practice sites?

• Would the School be at risk of putting two experiential learning programs (Co-op vs. Rotations) in direct “competition”? 
## PATIENT CARE ROTATIONS

<table>
<thead>
<tr>
<th>Practice type</th>
<th>Number of available rotations (as per preceptor availability)</th>
<th>Matched rotations (% of total rotations matched)</th>
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<tbody>
<tr>
<td>Institution total</td>
<td>208</td>
<td>124 (36%)</td>
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<tr>
<td>Hospital</td>
<td>188</td>
<td></td>
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<tr>
<td>Long-term Care</td>
<td>20</td>
<td></td>
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<tr>
<td>Primary care total</td>
<td>563</td>
<td>221 (64%)</td>
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<tr>
<td>Community pharmacy</td>
<td>494</td>
<td></td>
</tr>
<tr>
<td>Family health team</td>
<td>37</td>
<td></td>
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<tr>
<td>Outpatient pharmacy</td>
<td>32</td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>771</strong></td>
<td><strong>345 (100%)</strong></td>
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Figures based on Rx2016 cohort
THE NUMBERS:

Excellent numbers for Patient Care Rotations; BUT, what about Co-op?
CO-OP PLACEMENT STATISTICS

• Recruited an average of 1.4* jobs per student
• 100% employment rate for students

*2015-2016 Co-op statistics (after inception of Patient Care Rotations)
THE NUMBERS:

Lessons Learned:

• In some instances past Co-op partners decided that Patient Care Rotations were a better fit for their practice site.
• Many remained committed to the early-mid curricular Co-op philosophy, and decided to take on late curricular Patient Care Rotation students in addition to Co-op.
• Ultimately “competition” between Co-op and Rotations was non-existent; in fact, School was able to leverage already existing Co-op partnerships in securing Patient Care Rotation practice sites/preceptors.
• Unique mentorship models / near peer teaching – opportunity to explore and research this further with our dual Co-op & Patient Care Rotation partners.
THE MEASURE:

• After first iteration of Patient Care Rotations how did we measure success and areas for improvement in both rotations and co-op?

• Built a formal quality assurance process

• Collection and analysis of data has already informed program modifications (student & supervisor/preceptor surveys)
THE MEASURE:

Lessons Learned:

• New model...recurring themes:
  » guidelines & structure
  » assessment tools

• What worked well:
  » the Regional Model – opportunity for students to gain an intimate understanding of a region’s unique interconnected health care system
  » RCC support
  » progressive preceptors and practice sites, opportunities to students to practice with a high degree of independence (with high level RPh supervision)
CONCLUSIONS

1. Get on the road, listen, and deliver – what conversations are taking place at the practice site level?
2. Experiment with how staff/faculty resource needs are met.
3. Involve students; but be prepared to listen and accommodate when appropriate
4. Take some risks, stay true to the above
5. Gather feedback (lots of feedback!), analyze, and modify

Co-op and Patient Care Rotations can co-exist; and complement each other to the benefit of the School, students, and external partners
Questions?

Thank you!