Pediatric subspecialty teaching in a low resource setting...when teaching becomes learning

Dana Boctor
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DISCLOSURES

• I do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.
MUST / U of C
Pediatric Education Partnership
Mission Statement

• To deliver subspecialty curricula reflecting a teaching philosophy of:

  • Higher level learning
    • Concepts over content
  • Symbiotic learning
    • Interactive learning
  • Supportive learning environment

• Teachers and learners achieve excellence in practice
The Context: The Learner

Aspiration

Resource

Responsibility

Risk

Social

Didactic
“TEACH US EVERYTHING”
The Context: The Teacher

Seasoned Clinician

Skilled Educator

Tropical Medicine
Practice: Context Change
QUESTION:

WHAT WAS THE IMPACT ON U of C FACULTY DEVELOPMENT?
METHODS

UofC Faculty Meetings
- Every 2 months
- Program development & refinement
- Post-visit debriefs

Curricula*
- Development & Delivery
- Evaluation
- Refinement
- Re-delivery

Faculty Surveys
- Impact:
  1. Qualitative
  2. Quantitative

Pediatric: GI, Oncology, Nephrology, Neonatology, Neurology

* Boctor D et al  The development & delivery of pediatric subspecialty curricula in a low resources setting. ICRE 2019 abstract 069
# RESULTS: CHALLENGES FACED BY FACULTY

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Adaptation</th>
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<tbody>
<tr>
<td>Faculty ≠ tropical medicine experts</td>
<td>Focus = “Exchange”: Leverage Local Expertise</td>
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<tr>
<td>Subspecialties = resource intensive</td>
<td>Content adaptation: low resource setting</td>
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<tr>
<td>Local educational construct: traditional</td>
<td>Interactive teaching: Anchor with local cases</td>
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<td></td>
<td>SIM cases to complement topics</td>
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<td>Emphasis: building safe learning</td>
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<td>Compressed time</td>
<td>Flipping the classroom</td>
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<td>Student satisfaction: 5/5</td>
<td>Monthly case teleconference</td>
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<td>Critical Incident Questionnaire*</td>
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* Brookfield SD 2006: The Critical Incident Questionnaire:
“To what degree has this work contributed to your own faculty development in the following CanMeds realms?”

- Teaching Skills
- Resource Utilization
- Collaborator
- Cross-cultural
- Medical Expert

n=7
“How has your work in international health contributed to your own faculty development in the following realms?”

- Curriculum Development
- Evaluation Skills
- Leadership
- Understanding Diversity
- Social Accountability

n=7
Qualitative Surveys: Learning Themes

- Reverse Adaptation
  - Flipping the classroom
  - Simulation: low fidelity
  - Approach to care: resource stewardship

- Awareness
  - Others: diversity exposure, cultural competence
  - Social Issues: the determinants of health revisited
  - Self-reflection: strengths, weaknesses

Engaged students → Motivated faculty
CONCLUSIONS

• Learner + Teacher + Context

• UofC faculty:
  • valued the bilateral learning model
  • perceived that it contributed to their faculty development
    • Curriculum development, Collaborator, Teacher
    • Cross cultural competence, Diversity, Accountability
  • anticipated a meaningful impact on their work back at home.
## The Team

<table>
<thead>
<tr>
<th>Subspecialty</th>
<th>Faculty</th>
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<tbody>
<tr>
<td>Nephrology</td>
<td>Andrew Wade</td>
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<tr>
<td>Neonatology</td>
<td>Majeeda Kamaluddeen</td>
</tr>
<tr>
<td>Neurology</td>
<td>Aleksandra Mineyko</td>
</tr>
<tr>
<td>Oncology</td>
<td>Dr. Greg Guilcher, Lucie Lafay-Cousin</td>
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<tr>
<td>General Pediatrics</td>
<td>Amonpreet Sandhu</td>
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<tr>
<td>Medical Education</td>
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<tr>
<td>Gastroenterology</td>
<td>Dana Boctor, Decker Butzner</td>
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<tr>
<td>MUST Program &amp; SIM for Life</td>
<td>Data Santorino</td>
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<tr>
<td>Director</td>
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<tr>
<td>Chief of Pediatrics</td>
<td>Elias Kumbakakumba</td>
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Acknowledgements

In memory of
Professor Julius Kiwanuka

We greatly appreciate the support from:

HEALTHY CHILD UGANDA

Contact Information: dana.doctor@ahs.ca
Collaborator

• “... This `collaborating to learn’ has been the richest, most intense medical education experience I have had to date. The local residents share their expertise of tropical medicine, I share my expertise of approach to disease, and together we refine what needs to be learned”
Medical Expert

• “These trips challenge me not to just follow protocol recommendations but to understand the relative importance of each component of cancer therapy ... what might be lost in terms of disease control if expensive therapies are omitted and what might be gained in terms of ability to deliver therapies in a safe and equitable way in a resource limited setting. My understanding of these therapies improves not only for delivery in Uganda, but also in North America ... “