Interprofessional Teamwork in Global Health: A Vector for Interprofessional Development

James Ballard¹, Maria Gabriela Castro¹, Mary Lynn English¹, Andrea Pfeifle¹, Melody Ann Ryan¹, and Ted Hodgson²

¹ University of Kentucky, Lexington, Kentucky
² Northern Kentucky University, Highland Heights, Kentucky
Background

• What we ‘know’
  – Literature identifies demonstrated change in attitudes as a result of learning with, about and from each other (Barr, et.al., 2000)
  – Similar experiences at UK

• Less understood:
  – What if students are required to participate if the primary motivation of the experience is not IPE?
  – What does the process of interprofessional development look like?

• Relevant vectors for IPE
  – Clinical is idea
  – Consider global health as an appropriate context
Questions

1. Do global health outreach opportunities for students offer an effective academic/clinical context through which to develop interprofessionality?

2. Will students who have not self selected to engage in an interprofessional course have improved attitudes about interprofessional collaboration after a short course utilizing an interprofessional teaching methodology?

3. If so, what is the developmental process through which these changes occur?
The Experience

• **Purpose**: Prepare students for teamwork and collaborative practice through coursework followed by short-term health outreach in Santo Domingo, Ecuador

• **Process**: Readings, large group didactics, small group clinical problem solving (Unfolding family case) and written reflection

• **Clinical Culmination**: one week short-term health outreach trip to Santo Domingo, Ecuador during which students participate in field clinics, health fairs and home visits,
Theoretical Orientation & Bias

• Constructivist Orientation
  – Course: utilized implicit interprofessional instruction
  – Evaluation: Focused on the meaning constructed by the participants

• Developmental Bias
  – Previous training: Adult cognitive and intellectual development
  – More interested in the journey to knowledge
Methods

- Design
  - Mixed Method
  - Pre and Post
  - SPSS v. 20
  - Sign-test for quantitative analysis (Likert/Ordinal data)
  - Narrative approach for qualitative analysis
Methods - Instrumentation

• Quantitative Measures:

1) Attitudes Toward Health Care Teams Scale (ATHCT) (Heinemann, Schmitt, Farrell, & Brallier, 1999) – [0 = Strongly Disagree -5 = Strongly Agree

• Two subscales including:

  – 1) Quality of Care/Process (QC)(14 items) - team members’ perceptions of the quality of care that can occur in a patient care context as a result of interprofessional team care

  – 2) Physician Centrality (PC)(6 items) - team members’ attitudes toward physicians’ authority in teams and their control over patient information
Methods - Instrumentation

Interprofessional Understanding Instrument (IUI) (Pfeifle, 2009) [0 = Not at all – 4 = Very Much]

– Four items measuring the extent to which participants:
  • View Health care as a team activity
  • Can envision the ‘big picture” in health care
  • Are aware of own biases toward other professions
  • Are aware of own strengths and weaknesses

– Four items asking participants to rate their:
  • Ability to communicate effectively with other professions
  • Confidence in working as part of an IP team
  • Effectiveness in motivating others toward a common goal
  • Effectiveness at managing group conflict (facilitating consensus)
Methods

Qualitative

• Reflection Questions
• 1. What did learn about working with people from cultures other than your own?
• 2. What did you learn about working with people from professions other than your own?
• 3. How do you expect this experience to impact the way you approach your future career?
• 4. Are there other thing you learned from course? Please explain.
Methods - Procedures

- ATHCT and IUI administered on first and last day of class
- Reflective questions collected on first and last day of class
- Future – Post brigade reflections
Results – Quantitative

• N = 32: Only those who completed both pre and post assessments
  – 25 women, 7 men
  – 29 (93.5%) self identified as White, non-Hispanic; 1 (3.2%) Hispanic and 1 (3.2%) Asian
  – Distribution by profession

<table>
<thead>
<tr>
<th>Program</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD</td>
<td>3</td>
<td>9.4%</td>
</tr>
<tr>
<td>Nursing</td>
<td>7</td>
<td>21.9%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>7</td>
<td>21.9%</td>
</tr>
<tr>
<td>PT</td>
<td>10</td>
<td>31.3%</td>
</tr>
<tr>
<td>Undergrad – Non Health</td>
<td>5</td>
<td>15.6%</td>
</tr>
</tbody>
</table>
• All Participants: Attitudes Toward Health Care Teams Scale (ATHCT)

• Sign-test:
  – Likert scale (ordinal data) requires non-parametric statistics
  – Appropriate for paired data (pre/post)
  – Lacks power of paired t-test or Wilcoxon signed-rank
  – Therefore conservative

• Parameter of interest: Change in attitudes about quality of care and distribution of power within a care team.
Results – ATHCT

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Median</th>
<th>Below</th>
<th>Equal</th>
<th>Above</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>QC Scale Post-Pre</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>22</td>
<td>.0081*</td>
</tr>
<tr>
<td>PC Scale Post-Pre</td>
<td>0</td>
<td>14</td>
<td>5</td>
<td>13</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Significant at p < .05

Results: Summary

• Significant change in anticipated direction for QC Scale – more likely after participating in the course to believe that the quality of patient care is enhanced by interprofessional team care (Reject H₀)

• No change in PC as a result of the course
  • Too early in career – No one has “Centrality”
Results: Interprofessional Understanding

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Median</th>
<th>Below</th>
<th>Equal</th>
<th>Above</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>View health care as a team activity</td>
<td>0</td>
<td>2</td>
<td>21</td>
<td>9</td>
<td>.453</td>
</tr>
<tr>
<td>Can envision the ‘big picture” in health care</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>17</td>
<td>.035*</td>
</tr>
<tr>
<td>Are aware of own biases toward other professions</td>
<td>0</td>
<td>4</td>
<td>13</td>
<td>15</td>
<td>.118</td>
</tr>
<tr>
<td>Are aware of own strengths and weaknesses</td>
<td>0</td>
<td>4</td>
<td>23</td>
<td>5</td>
<td>1.00</td>
</tr>
<tr>
<td>Ability to communicate effectively with other professions</td>
<td>0</td>
<td>2</td>
<td>15</td>
<td>15</td>
<td>.022*</td>
</tr>
<tr>
<td>Confidence in working as part of an IP team</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>11</td>
<td>.012*</td>
</tr>
<tr>
<td>Effectiveness in motivating others toward a common goal</td>
<td>0</td>
<td>8</td>
<td>17</td>
<td>7</td>
<td>1.00</td>
</tr>
<tr>
<td>Effectiveness at managing group conflict (facilitating consensus)</td>
<td>0</td>
<td>7</td>
<td>15</td>
<td>10</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Significant at p < .05
Qualitative Analysis

• Methods: Narrative analysis
  – Stories within context
  – Meaning Making
  – Psychological (developmental) method of analysis
  – Data analysis
    • Primary analysis is thematic – themes identified through what was said
      – Primary themes identified
      – Supporting sub-themes identified
• Create the gestalt
• Coding not based on preexisting constructs
• Initial coding identified 22 themes
• Collapsed into 15 discreet subthemes
• Reassembled into two major themes supported by the 15 sub-themes
Thematic Analysis

• **Major Theme 1: Decentering** – Movement from an individual for working effectively with patients to an integrated focus (culture, profession and patient). The result is movement from what I, or my profession, can do FOR the patient to what the team can do WITH the patient. This was observed at two levels (cultural and professional)
  – Cultural
  – Professional
Thematic Analysis

• Major Theme 1: Decentering
  – Cultural
    • Respect and value other cultures
    • Reflect on ones’ own cultural biases
  – Professional
    • Respect and value other professions
    • Understand others’ roles and scopes of practice
    • Acknowledge collaboration and IP communication
    • Ability to take perspective of others and recognize biases
  – Culminates in
    • Understanding complexity of care
    • Importance of team
    • Need for holistic care
Thematic Analysis:

Major Theme 2: Transformation of practice –

• Represents the application of many of the issues identified above into practice.

• According to Wakefield (2004) Commitment to change can predict of implementation of changes in healthcare practices.

• Includes the following components:
Thematic Analysis: Transformation of Practice

- Intentional focus on communication (with patents and other professions)
- Seeking out interprofessional practice contexts
- Actively promoting interprofessional collaborative practice
- Embrace the need to understand cultural difference
- Ability to transfer knowledge to future patients in the U.S.
- Increased systematic thinking – a broader perspective of health care
• Quantitative results
  – Attitudinal change realized as result of the experience – Quality and safety enhanced

• Qualitative results
  – Provide what this looks like and how it arose.
    • Greater understanding of role and scope of practice
    • What each profession bring to the table
    • Complexity of care (holistic for patient and systems-based practice
    • Recognition of biases
    • Decentering of self (within culture) and profession
    • How future practice is transformed

