Building rehabilitation capacity in Honduras: Impact of workshops on professional networking
Outline

Introduction
  Network of Rehabilitation Workers
  Visiting Lecturer Series
  Setting - Honduras
  Professional Networking

Methods
  Research Design
  Participants
  Instrumentation
  Data Analysis

Results
Conclusions
Visiting Lecturer and Workshop Series

Teaching events

Workshops/Mentorship tutorial

Seminars

Public Lectures

Collaborative meetings

Media Events

Local Television

Local Radio

Research

Workshop/Mentorship tutorial evaluation

Professional Networking
Distribution of self-identified rehabilitation workers by province in Honduras - 2013

Comparison

<table>
<thead>
<tr>
<th>Province</th>
<th>Rehab Workers/100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colón (1) (2013)</td>
<td>0.4</td>
</tr>
<tr>
<td>Francisco Morazán (1) (2013)</td>
<td>15.4</td>
</tr>
<tr>
<td>Saskatchewan, Canada (2) (Physical Therapists only 2018)</td>
<td>69.3</td>
</tr>
<tr>
<td>Santander, Colombia (3) (Physical Therapists only 2000)</td>
<td>48.0</td>
</tr>
</tbody>
</table>

1. Instituto Nacional de Estadística Honduras, 2013
2. Sask. College of Physical Therapists Annual Report, 2018

Source: Instituto Nacional de Estadística Honduras, 2013
## Rehabilitation workforce in Honduras (2013)

<table>
<thead>
<tr>
<th>Occupations*</th>
<th>n</th>
<th>Per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapist (upper level)</td>
<td>118</td>
<td>1.54</td>
</tr>
<tr>
<td>Physiotherapy assistants and technicians</td>
<td>279</td>
<td>3.64</td>
</tr>
<tr>
<td>Speech therapist / audiologist</td>
<td>12</td>
<td>0.16</td>
</tr>
<tr>
<td>General Practitioner</td>
<td>3,376</td>
<td>44.09</td>
</tr>
<tr>
<td>Specialist physician</td>
<td>2,716</td>
<td>35.47</td>
</tr>
<tr>
<td>Total population</td>
<td>7,657,684</td>
<td></td>
</tr>
</tbody>
</table>

*Occupational therapy was not listed as an occupation

Source: Instituto Nacional de Estadistica Honduras, 2013
Rationale

In Honduras:

- Under-development of professional stature of rehab workforce
  - No professional associations
  - No university-based PT or OT programs
- Disconnect between rehabilitation centers and the national health care system
- Limited opportunities for professional networking
Networking is a deliberate activity to build, reinforce and maintain relationships of trust with other people to further your goals.

Professional networking is simply networking focused on professional goals.
Purpose

To evaluate whether two continuing education workshops would strengthen professional networking among attendees.
Methods

Design: Longitudinal study

Ethics: Exemption from USASK Behavioral Science Ethics Review Board

Data Analysis: simple and multiple mixed models

Instrumentation: Demographics questionnaire, professional networking questionnaire
Professional Networking Questionnaire

Items (10)
- 6 Likert Items
  - five point scale, Never = 0, Always = 4
- 4 Yes - No Items
  - No = 0, Yes = 4
- Items rated based on the past year
- Developed by the research team

Subscales (2)
- Supportive Networking
- Exposure to Professional Networking Opportunities
Supportive Networking Subscale
(eg, clinical cases, work challenges)

- I collaborated in solving clinical problems with other colleagues of my profession in my workplace
- I collaborated with other professionals of the health team
- I worked with other colleagues in my profession outside my workplace
- I was in close contact with other professionals outside my workplace who can help me with my work.
- If I need to contact professionals in my region, I have enough information at my fingertips to contact them easily.
- I collaborated in solving clinical problems with other colleagues of my profession in my workplace
- I collaborated with other professionals of the health team
- I have a clinical mentor with whom I can discuss my cases

Exposure to Professional Networking Opportunities Subscale

- I collaborated regularly with peers and professional colleagues at professional or educational meetings
- I participated in educational events related to my profession
- I belong to an association of my profession
- I belong to interest groups or discussion groups
Workshops

1
2017

2
2017

3
2018

Neurorehabilitation Workshop
Acquired Brain Injury and Spinal Cord Injury
Sept. 8 and 9, 2017, Tocoa, Honduras

Isabel Cristina Gómez Díaz
Melvin Urbina Nuñez
Ofelia Calderón Rodríguez

Workshop: Rehabilitation of children with delayed neuromotor development
September 13, 2017, Trujillo, Honduras

Isabel Cristina Gómez Díaz
Physiotherapist, MSc in Neuromotor Rehabilitation, Professor of Physiotherapy, University of Santander, Researcher, Neurotrauma Center SAG, Bucaramanga, Colombia
Participants (n=41)

Attendance - a closer look
• 27 people attended only one workshop
• 9 people attended two workshops
• 5 attended all three
• 41 unique individuals
## Evaluations at follow-up

### Number of attendees per workshop

<table>
<thead>
<tr>
<th>Year</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-1</td>
<td>n=16</td>
</tr>
<tr>
<td>2017-2</td>
<td>n=14</td>
</tr>
<tr>
<td>2018</td>
<td>n=30</td>
</tr>
</tbody>
</table>

### Attendance at Workshops

<table>
<thead>
<tr>
<th>Evaluations</th>
<th>Time 0 $T_0$</th>
<th>Time 1 $T_1$</th>
<th>Time 2 $T_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only 2017-1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only 2017-2</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only 2018</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017-2 &amp; 2018</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2017-1 &amp; 2018</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>All three</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

$T_0=41$, $T_1=14$, $T_2=5$
Main Independent

Attendance at Workshops $T_0, T_1, T_2$

Dependent

Supportive Networking

Exposure to Professional Networking Opportunities

Covariates: gender, age, being a health care professional, position, state of residence, country of degree, workplace and experience working in health care.
Results
## Demographics at baseline

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age groups n (%)</td>
<td>&gt; 30</td>
<td>21</td>
<td>(51.2)</td>
</tr>
<tr>
<td>Gender n (%)</td>
<td>Women</td>
<td>33</td>
<td>(80.5)</td>
</tr>
<tr>
<td>Health Care Prof. n (%)</td>
<td>Yes</td>
<td>20</td>
<td>(48.8)</td>
</tr>
<tr>
<td>Position n (%)</td>
<td>PT</td>
<td>12</td>
<td>(29.3)</td>
</tr>
<tr>
<td></td>
<td>Rehab Assistant</td>
<td>7</td>
<td>(17.1)</td>
</tr>
<tr>
<td></td>
<td>MD and RN</td>
<td>9</td>
<td>(22.0)</td>
</tr>
<tr>
<td></td>
<td>Educ</td>
<td>6</td>
<td>(14.6)</td>
</tr>
<tr>
<td></td>
<td>Psych</td>
<td>6</td>
<td>(14.6)</td>
</tr>
<tr>
<td>Workplace n (%)</td>
<td>Rehab Centre</td>
<td>21</td>
<td>(51.2)</td>
</tr>
<tr>
<td></td>
<td>Hosp/Private Clinic</td>
<td>10</td>
<td>(24.4)</td>
</tr>
<tr>
<td>Experience HC</td>
<td>Median (IQR)</td>
<td>3</td>
<td>(1-8)</td>
</tr>
</tbody>
</table>
Demographics at baseline

State of Residence

<table>
<thead>
<tr>
<th></th>
<th>Colon</th>
<th>AT</th>
<th>Yoro+Bl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 0</td>
<td>22</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Time 1</td>
<td>11</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Time 2</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Forest Plots

Covariates Considered:
- gender
- age
- being a health care professional
- position
- state of residence
- country of degree
- workplace
- experience working in health care

Association:
Workshop attendance (time) and Professional Networking Subscales

![Graph showing association between workshop attendance and professional networking subscales.](image)
This study was largely exploratory

**Strengths**

- Development of a new questionnaire
- Focus on an important issue
- Provide baseline data for future studies

**Weaknesses**

- Sample size
- Convenience sample
- We suspect that some of the questions were not fully understood due to language and culture
- Lack of validity and reliability of the Professional Networking Questionnaire
- Longitudinal design did not control for other networking activities
Future Directions

- Validation of the Professional Networking Scale (Spanish and English)
  - Further exploration of Construct Validity
- Comparison of Rural and Urban Settings
- Evaluate online opportunities available in Honduras
- Ensure networking is maximized at future workshops
- Assess the impact of future professional associations as they develop
Our results demonstrated how attending the workshops has increased the professional networking opportunities in rehabilitation workers in northern Honduras.
References


