MCH LEADERSHIP DEVELOPMENT: A RETROSPECTIVE, COMPARATIVE COHORT STUDY

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Maternal-Child Health Academy Partnership since 2004
SPECIAL THANKS TO:

Julie Solomon, PhD
Sarah Williams Leng, MA

For use of their slides for the 2014-2015 NA cohort
Presentation Objectives

■ Describe leadership and patient outcomes by cohort
  - *Leadership knowledge*
  - *Leadership skills*
  - *Leadership practices*
  - *Patient outcomes*

■ Compare leadership and patient outcomes between South African cohort and North American cohort
  - *Leadership knowledge*
  - *Leadership skills*
  - *Leadership practices*
  - *Patient outcomes*
THE MCH LEADERSHIP DEVELOPMENT PROGRAM

PURPOSE

The MCH Leadership Academy is designed to prepare and position nurses and nurse midwives to influence practice and patient outcomes.
Think Tank - 2002
Think Tank members

- Maternal-child health nurse experts from Canada and the United States
- Sigma Theta Tau International Leadership
- Johnson & Johnson Pediatric Institute
Think Tank members considered options...

- Collaborative models of practice
- Leadership development
- Evidence based practice
- Societal issues
Think Tank members concluded...

“The greatest impact is with the leadership development of front-line nurses to improve the health care outcomes of mothers and babies.”
Academy Objectives

Graduates will be able to:

• Improve maternal-child health outcomes through leadership and EBP
• Influence maternal-child health care within a variety of settings
• Create and effectively lead an interdisciplinary team to improve maternal-child health practice outcomes
• Disseminate lessons learned in leadership development for maternal-child health
Theoretical Underpinnings of Program

The Leadership Challenge

- Challenge the Process
- Inspire a Shared Vision
- Enable to Others to Act
- Model the Way
- Encourage the Heart

Kouzes and Posner, 2012
Structure and Format

- Developed and facilitated by experts in maternal-child health and organizational development
- 18-month, mentored leadership development experience, contextually framed.
- Multi-level learning is achieved through content in:
  - *Leadership self-assessment and development*
  - *Interdisciplinary team development; project development, management and evaluation*
  - *Dissemination of project outcomes and lessons learned*
Mentee/ Fellow Expectations

- Commit time and energy to learning and practicing leadership
- Design and implement projects using leadership skills
- Time and learning from mentors
- Use the Kouzes and Posner five step Model as a guide throughout the 18 month process
Mentor Expectations

- Invest in the mentee's leadership
- Provide guidance and expertise
- Use influence to support/guide the mentee
- Gain new insights and learnings as a leader and as a guide
Faculty Expectations

- Invest in the dyads
- Keep regular contact
- Provide expertise, resources and tools
- Two in person visits to guide and support the interprofessional project team
- Assist with “project snags”
Collaboration

Coordination

Cooperation
MCH NLA: South Africa Pilot
MEASURES
### Evaluation instruments & data collection timeline

**2014-2015 North America Cohort:** N=14 Fellows and N=13 Mentors

**2014-2015 South Africa Cohort:** N=12 Fellows, N=12 Mentors

<table>
<thead>
<tr>
<th>Instrument(s)</th>
<th>Baseline (just prior to Workshop 1)</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Follow-Up (end of Workshop 1)</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Follow-Up (end of Workshop 2)</th>
<th>Final Follow-Up (at Biennial Convention)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leadership Knowledge &amp; Skills Survey (STTI survey)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2. Kouzes &amp; Posner Leadership Practices Inventory (LPI)</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. STTI/J&amp;J Surveys</td>
<td>X (a-c)</td>
<td></td>
<td></td>
<td>X (Follow-up: a-e Retro pre: a-b)</td>
</tr>
<tr>
<td>a. Leadership abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Management skills</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>c. Involvement in field</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>d. Project report (Fellows only)</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>e. Other program impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Feedback Surveys</td>
<td>X (a-b)</td>
<td>X (a-b)</td>
<td>X (b-c)</td>
<td></td>
</tr>
<tr>
<td>a. Workshop session ratings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Feedback on MCH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Achievement of MCH objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Fellows’ Project Posters (review by evaluator)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

* Note: One Mentor dropped out before Workshop 2 and was replaced after Workshop 2. No data from the Mentor that dropped out are included in the present report. The replacement Mentor’s data from the Final Feedback Survey are included in this report.
SOUTH AFRICAN COHORT
Leadership *knowledge* scores: baseline and final follow-up: Scale [1=low, 5=high]

- Statistically significant increases in mean score over time for Fellows and for Mentors
- Difference in trajectory of change between Fellows and Mentors is statistically significant; Fellows “caught up” to Mentors
Mean Knowledge Scores Over Time
Scale [1=low, 5=high]
Leadership **skills** scores: baseline and final follow-up. Scale [1=low, 5=high]

- Statistically significant increases in mean score over time for Fellows and for mentors
- Fellows “caught up” to mentors
Leadership skills scores: four time points. Scale [1=low, 5=high]

• The largest increase in mean skills score took place between baseline and 1st follow-up, for both Fellows and Mentors
Overall scores: baseline and final follow-up

Scale [1=low, 10 =high]

- Difference in trajectory of change between Fellows and Mentors is not statistically significant
Fellows’ **LPI** scores at baseline and final follow-up: Scale [1=low, 10=high]
Project Titles

- Promoting family-centered care in a neonatal ICU
- Establishing a midwifery obstetric unit in Seshego
- Initiating birthing partner support in a low risk labour ward
- Supporting mothers to exclusively breastfeed
- The correct recording on the Partorogram through empowering midwives
- Incorporating nutrition education among post-partum women
<table>
<thead>
<tr>
<th>HCP Beneficiaries of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td># of obstetricians: 16</td>
</tr>
<tr>
<td># of surgeons (non-obstetric): 0</td>
</tr>
<tr>
<td># of general medicine physicians: 12</td>
</tr>
<tr>
<td># of other physicians: 23</td>
</tr>
<tr>
<td># of nurses: 46</td>
</tr>
<tr>
<td># of nurse midwives: 234</td>
</tr>
</tbody>
</table>
### Other Beneficiaries of Projects

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td># of female children ages 0-5:</td>
<td>6013</td>
</tr>
<tr>
<td># of male children ages 0-5:</td>
<td>3699</td>
</tr>
<tr>
<td># of female children ages 6-18:</td>
<td>2085</td>
</tr>
<tr>
<td># of male children ages 6-18:</td>
<td>0</td>
</tr>
<tr>
<td># of men (&gt;18 years old):</td>
<td>26</td>
</tr>
<tr>
<td># of women (&gt;18 years old)</td>
<td>7709</td>
</tr>
</tbody>
</table>
NORTH AMERICAN COHORT
Leadership knowledge scores: baseline and final follow-up. Scale [1=low, 5=high]

- Statistically significant increases in mean score over time for Fellows (p<0.001) and for Mentors (p<0.001)
- Difference in trajectory of change between Fellows and Mentors is statistically significant (p=0.008); Fellows “caught up” to Mentors
Leadership knowledge scores: four time points
Scale [1=low, 5=high]

• The largest increase in mean knowledge score took place between baseline and 1st follow-up, for both Fellows and Mentors.
Leadership **skills** scores: baseline and final follow-up. Scale [1=low, 5=high]

- Statistically significant increases in mean score over time for Fellows ($p=0.001$) and for mentors ($p=0.002$)
- Difference in trajectory of change between Fellows and Mentors is statistically significant ($p=0.007$); Fellows “caught up” to mentors
Leadership **skills** scores: four time points

Scale [1=low, 5=high]

<table>
<thead>
<tr>
<th>Time Point</th>
<th>Mentors Mean (SD)</th>
<th>Fellows Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>2.93 (.67)</td>
<td>4.04 (.32)</td>
</tr>
<tr>
<td>1st Follow-up</td>
<td>4.3 (.50)</td>
<td>4.04 (.44)</td>
</tr>
<tr>
<td>2nd Follow-up</td>
<td>4.3 (.34)</td>
<td>4.48 (.42)</td>
</tr>
<tr>
<td>Final Follow-up</td>
<td>4.5 (.36)</td>
<td></td>
</tr>
</tbody>
</table>

- The largest increase in mean skills score took place between baseline and 1st follow-up, for both Fellows and Mentors.
LPI Overall scores: baseline and final follow-up
Scale [1=low, 10 =high]

- Difference in trajectory of change between Fellows and Mentors is not statistically significant
Fellows’ **LPI** scores at baseline and final follow-up\(^1\): All domains & LPI Overall increased significantly

**LPI Subscale Scores**

- **ENCOURAGE**: Pre: 7.1, Follow-up: 8.4
- **CHALLENGE THE PROCESS**: Pre: 6.3, Follow-up: 7.7
- **INSPIRE SHARED VISION**: Pre: 6.4, Follow-up: 7.9
- **ENABLE OTHERS**: Pre: 7.73, Follow-up: 8.5
- **MODEL THE WAY**: Pre: 6.89, Follow-up: 7.9

**LPI Total Scores**

- **CATEGORY 1**: Pre: 6.9, Follow-up: 7.9
## Project focus

<table>
<thead>
<tr>
<th>Focus</th>
<th># of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prenatal care</strong></td>
<td></td>
</tr>
<tr>
<td>Develop a group prenatal care model for women with a prenatally diagnosed fetal anomaly</td>
<td>1</td>
</tr>
<tr>
<td>Improve assessment and patient education related to preterm labor</td>
<td>1</td>
</tr>
<tr>
<td><strong>Neonatal care</strong></td>
<td></td>
</tr>
<tr>
<td>Educate prehospital care providers about about newborn management following an out-of-hospital birth</td>
<td>1</td>
</tr>
<tr>
<td>Increase skin-to-skin contact and breastfeeding rates among newborns (clinical setting focus)</td>
<td>4</td>
</tr>
<tr>
<td>Increase breastfeeding rates (clinical and community setting focus)</td>
<td>1</td>
</tr>
<tr>
<td>Improve management of preterm infants on oxygen in the NICU</td>
<td>1</td>
</tr>
<tr>
<td>Enhance awareness of neonatal skin injuries experienced by NICU patients</td>
<td>1</td>
</tr>
<tr>
<td>Educate nurses to care for grieving prenatal loss patients</td>
<td>1</td>
</tr>
<tr>
<td>Educate mothers on newborn care to reduce non-emergent use of Emergency Department</td>
<td>1</td>
</tr>
<tr>
<td><strong>Pediatric care</strong></td>
<td></td>
</tr>
<tr>
<td>Integrate a home visiting Public Health Nurse into the pediatric medical home</td>
<td>1</td>
</tr>
<tr>
<td>Increase the confidence and competence of patient care assistants to provide developmental pediatric care</td>
<td>1</td>
</tr>
</tbody>
</table>
COMPARISON BETWEEN COHORTS
Comparison – Final Follow-Up

South Africa
- Knowledge
  - Fellows: 4.6
  - Mentors: 4.4
- Skills
  - Fellows: 4.5
  - Mentors: 4.5
- LPI
  - Fellows: 8.0
  - Mentors: 8.5

North America
- Knowledge
  - Fellows: 4.5
  - Mentors: 4.5
- Skills
  - Fellows: 4.5
  - Mentors: 4.6
- LPI
  - Fellows: 7.9
  - Mentors: 8.4
Conclusion

- No difference's in outcomes between the two geographic areas
- Fellows and mentors develop over time
  - Fellows from both programs
    - Show more growth
    - Catch up to their mentors
- Program has a significant impact on patients and families, as well as health care providers
- Program can be implemented in other areas of the globe
Questions
References


