Partnering with Parteras

Assessment of learning in a multi-collaborator international training program for traditional birth attendants in Oaxaca Mexico

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Disclosures

- None
The itinerary

- Background
  - Maternal mortality
  - Traditional Birth Attendants
  - Global Health Education and Service
  - Puerto Escondido, MX

- Methods
- Challenges
- Results
- Discussion
Background
Maternal Mortality

- >230/100,000 women in the developing world will die in childbirth
- 99% of maternal deaths are in developing world

Causes of maternal death in the world by percentage
Traditional Birth Attendants

“a person who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or through an apprenticeship to other TBAs”

WHO 1992
Traditional Birth Attendants

While the role of traditional birth attendants has been questioned, organizations like the WHO and UNICEF have suggested TBAs should be used to “bridge the gap until there is access to acceptable, professional, modern health care services for all women and children.”
Mexican TBAs

- Traditional birth attendants = parteras
- Modern and traditional medicine
- Largely illiterate population without formal education
- 60% of women

https://www.google.com/search?q=old+meets+new&
Mexican Health Care

- Modernization of health care provision
- Centralization of services:
  - Community centers
  - Health centers
  - Hospitals
- Rural regions
  - Difficult transportation
  - Long distances
Unintended consequences

- Medication availability
- Response to emergencies
- Disempowerment
Global Health Education and Service

- Short vs. long term
- No quick fix
- “Voluntourism”

- Northwestern Partnership with CFHI

Crump and Sugarman 2013
Purpose:

- To provide a 4 day training for traditional birth attendants as part of usual certification
- To assess the impact of curriculum on self-reported competence
Methods
Stakeholders and Participants

- Northwestern Medical Students
  - 10 rising 2\textsuperscript{nd} (6) and 4\textsuperscript{th} (4) year medical students

- NGO Facilitator: Child and Family Health International

- Mexican Ministry of Health
  - Local physician
  - Nursing representative

- Traditional Birth Attendants
  - 32 participants (29 women, 3 men)
Curriculum

- 12 core learning objectives MOH
- Delivered in Spanish
- 4 days, from 9:00am-2:00pm
- Community lunch
Core Learning Objectives

- Risk Factors
- Anatomy and Physiology
- Normal Pregnancy
- Complicated Pregnancy
- Prenatal Care
- Normal Labor

- Complicated Labor
- Neonatal Care
- Postpartum Care
- Lactation
- Contraception
- Nutrition
<table>
<thead>
<tr>
<th>Topic</th>
<th>Subtopics</th>
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</thead>
<tbody>
<tr>
<td>Risk factors</td>
<td>Personal risk factors (substance use, STIs)</td>
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<td>Domestic Violence</td>
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<tr>
<td>Anatomy and physiology</td>
<td>Names and function of male/female reproductive parts</td>
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<td>Conception</td>
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<td>Reproductive cycle</td>
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<td>Concerning signs and symptoms of pregnancy</td>
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<td>Complicated pregnancy</td>
<td>Symptoms and management of Preeclampsia, hyperemesis gravidum, ectopic</td>
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<td>pregnancy/abortion, vaginal bleeding in pregnancy</td>
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<td>Management of risk factors for complications</td>
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<td>Know when to refer patient to hospital</td>
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<tr>
<td>Prenatal Care</td>
<td>Basic recommendations for prenatal appointments by trimester</td>
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<td>Proper history, exam and tests for pregnant women</td>
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<td>Nutrition in pregnancy</td>
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<td>Lifestyle modifications in pregnancy</td>
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<td>Normal Labor</td>
<td>Stages of labor and fetal movements</td>
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<td>History and exam of patient in labor</td>
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<td>Management of labor</td>
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<td></td>
<td>Delivery maneuvers</td>
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<td>---------------------------------------------------------------------------</td>
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<td>Neonatal Care</td>
<td>Immediate care of newborn&lt;br&gt;Determining need for referral&lt;br&gt;Alarm signs for the newborn</td>
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<td>Postpartum Care</td>
<td>Delivery of the placenta&lt;br&gt;Care in the postpartum period&lt;br&gt;Management of postpartum hemorrhage&lt;br&gt;Prevention and management of infection postpartum</td>
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<td>Benefits of breastfeeding&lt;br&gt;Steps for successful breastfeeding&lt;br&gt;Complications of breastfeeding</td>
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<td>Forms of birth control&lt;br&gt;Use of emergency contraception&lt;br&gt;Methods of permanent birth control</td>
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<tr>
<td>Nutrition</td>
<td>Basic food groups, vitamins and minerals&lt;br&gt;Foods to avoid in pregnancy&lt;br&gt;Proper weight gain</td>
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Curriculum

- role plays
- discussion
- call and response
- simulation activities

Example: Postpartum Hemorrhage

- Call and response:
  - Signs/Symptoms PPH
  - Major Causes PPH
  - Treatment

- Cases
  - Reviewed in small groups
  - Presentation to entire group
Challenges of assessment:

- Surveys?
- Interviews
- Observed role-plays
- Simulations with checklists

Garcia 2012, Perosky 2011, Ampofo 1977
To assess confidence perceived ability/ knowledge
Sample questions:

- Postpartum Care
  - How confident do you feel about removing the placenta?
  - How confident do you feel about caring for the women after delivery?
  - How confident do you feel about managing excessive bleeding after delivery?
  - How confident do you feel about caring for a woman with infection after delivery?
Results
To assess confidence perceived ability/ knowledge
Sample questions:

- Postpartum Care
  - How able are you to remove the placenta?
  - How able are you to care for the women after delivery?
  - How able are you to manage excessive bleeding after delivery?
  - How able are you to care for a woman with infection after delivery?
# Pre-Post Self Assessments

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<th>Education Topic</th>
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Results

- Increased ability/knowledge
  - Normal pregnancy
  - Complicated pregnancy
  - Anatomy
  - Prenatal care
  - Complicated delivery

- Decreased knowledge?
  - Nutrition
  - Postpartum care (PPH)
## Decreased knowledge?

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<th>Pre-test Average</th>
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</table>
Postpartum Hemorrhage:

- Your patient is bleeding... what do you do?
Discussion
Improved knowledge

- Improvement in 5/12 areas
  - Normal/ Complicated pregnancy
  - Anatomy
  - Prenatal Care
  - Complicated delivery

- Teaching methods

- Partnership
Decreased knowledge?

- Topics
  - Postpartum Period
  - Nutrition

- Explanations
  - Poor delivery of material
  - Culturally specific
  - False confidence before teaching
  - Changed perceptions
Assessing interventions

- Assessment is difficult to assess in illiterate and innumerate populations
- “Confidence” is an unfamiliar term
- Assessment can be accomplished through orally administered questions with pictorial response sheets

Garcia 2012, Perosky 2011, Ampofo 1977
Global education and service

- Medical students can provide meaningful service while gaining experience with global health
- Service is facilitated by strong connections with local health personnel and global organizers
- Traditional birth attendants are receptive to working with medical students
Limitations

- Small sample
- One community of traditional birth attendants
- Single time point
- No assessment of health outcomes
Strengths

- Demonstrated improvement in self-perceived knowledge for traditional midwives
- Piloted a new approach to educational assessment in illiterate and innumerate participants
- Shows traditional birth attendants are willing to work with international medical students
- Demonstrates successful international collaboration between medical education and service
Thank you!

- Child and Family Health International
- Mexican MOH
- Northwestern University Center for Global Health
- The Parteras!
- Co-Authors
Thank you for your time.

I would love to answer your questions.
References:


- Chabot HT, Eggens KH. Antenatal card for illiterate traditional birth attendants. Tropical doctor. 1986;16:75-78


• Hodnett E. Traditional birth attendants are an effective resource. *Bmj*. 2012;344:e365P

• Perosky J, Richter R, Rybak O, Gans-Larty F, Mensah MA, Danquah
