Interprofessional Simulation Training to Impact Perinatal Outcomes in Rural Hospitals

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July 21, 2022
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Perinatal Outreach Goal
To improve rural hospital readiness, recognition and response to perinatal emergencies.

Background
- Fluctuating Obstetrical Census
- Low Birth Volumes
- Variable Opportunities to Practice Skills
- Nurses with Varying Obstetrical Expertise
- Need for Continuing Education
- Limited Simulation Experience
- Financial and Geographical Barriers

Interactive Model of Program Planning

Bryan Medical Center Critical Access Network

Perinatal Outreach Team

Interprofessional Education Collaborative

2017-2018 Postpartum Hemorrhage
2018-2019 Shoulder Dystocia
2019-2020 Maternal hypotension*
2020-2021 Maternal Hypertension
2022 Neotnal Immediate Care following birth

*Cancelled due to COVID
**Virtual

Program Evaluation

The Simulation Experience...

- Provided a comfortable and safe learning environment 4.86
- Outcomes and Objectives were clearly defined 4.84
- Replicated a realistic situation 4.80
- Allowed me to prioritize care and interventions 4.79
- Debriefing was a time for reflection and performance feedback 4.69
- Helped me better understand the different roles of the healthcare team 4.68
- Facilitation provided support and guidance throughout the scenario 4.68
- Enhanced my knowledge and will be helpful in practice 4.77
- Satisfactorily met my learning needs 4.74
- Increased my self-confidence 4.74

Overall 4.74

Table: Responses made for all items were “Strongly Agree” or “Strongly Disagree” on a 5-point Likert scale (1-5).

Implications for Rural Hospitals

- Formalized simulation outreach training programs provide rural hospitals with opportunities to practice skills and prepare for unexpected perinatal events
- Interprofessional simulation scenarios promote teamwork and collaboration to ultimately impact patient care outcomes

Agenda

<table>
<thead>
<tr>
<th>Participants</th>
<th>Format</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
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<tbody>
<tr>
<td>Physicians &amp; Advanced Practice Providers</td>
<td>Journal Article</td>
<td>1. ACOG PB: Gestational Hypertension and Preeclampsia</td>
<td>Benjamin Byers, DO, FACOG</td>
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<tr>
<td>Advanced Practice Providers</td>
<td>Virtual Presentation</td>
<td>2. ACOG CO: Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy and the Postpartum Period</td>
<td>Albert Ansah, MD, FAAP</td>
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<td>Rural Health Outreach Team</td>
<td>Virtual Presentation</td>
<td>3. Maternal Hypertension and Neonatal Resuscitation &amp; Preparations for Transport</td>
<td>Craig Sitzman, MD, FAAP</td>
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<td>Rural Health Outreach Team</td>
<td>Workshop</td>
<td>4. Maternal Hypertension &amp; Preparations for Transport</td>
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Note: Participant roles for all items were “Strongly Agree” or “Strongly Disagree” on a 5-point Likert scale (1-5).
## Goals & Background

### Perinatal Outreach Goal

To improve rural hospital readiness, recognition and response to perinatal emergencies.

### Background

- Fluctuating Obstetrical Census
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Bryan Medical Center Critical Access Network
Interactive Model of Program Planning

- **SUPPORT**: building a solid base of support
- **CONTEXT**: discerning the context
- **EVALUATION**: formulating program evaluation plans
- **DETAILS**: details, details, details
- **LEARNING TRANSFER**: devising transfer of learning plans
- **MARKETING**: organizing marketing campaigns
- **GOALS & OBJECTIVES**: developing program goals & objectives
- **INSTRUCTION**: designing instruction
- **BUDGETS**: preparing & managing budgets
- **NEEDS ASSESSMENT**: identifying & prioritizing ideas and needs
- **SCHEDULING**: selecting format, schedule & staffing

(Caffarella & Daffron 2013)
Perinatal Outreach Team
Interprofessional Education Collaborative

Core Competencies for Interprofessional Collaborative Practice:

2016 Update

The Learning Continuum pre-licensure through practice trajectory

IPEC, 2016
### Scenarios

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>2017-2018</td>
<td>Postpartum Hemorrhage</td>
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<td>Neonatal Resuscitation</td>
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<td>2019-2020</td>
<td>Maternal hypertension*</td>
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<td>2020-2021</td>
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<td></td>
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<td>Providers &amp; Perinatal Team</td>
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<td>Providers &amp; Perinatal Team</td>
<td>Simulation</td>
<td>Prebrief – Scenario – Debrief</td>
<td>Benjamin Byers, DO, FACOG</td>
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<td>Providers &amp; Perinatal Team</td>
<td>Round Table</td>
<td>Debriefing - Whole Team Evaluations – Participants</td>
<td>Simulation Team</td>
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<td>Rural Health Outreach Team</td>
<td>Discussion</td>
<td>Debrief</td>
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<td>Heartland Home Health</td>
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<td>Quality Improvement</td>
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### Notes
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## Program Evaluation

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Note: Response scale for all items was 5 (Strongly Agree) to 1 (Strongly Disagree)

**2021 Simulation Experience Questionnaire (N = 82)**
Implications for Rural Hospitals

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• Interprofessional simulation scenarios promote teamwork and collaboration to ultimately impact patient care outcomes
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2021 Simulation Experience Questionnaire (N = 82)

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