Strengthening Kangaroo Care for Preterm Infants in BC: Workshop
February 20th, 2020
Goals of the workshop

1. Describe the research evidence supporting Kangaroo Care with preterm and low birth weight infants
2. Explore solutions to common barriers to Kangaroo Care in BC NICUs
3. Demonstrate ways to support evidence-based practice change for NICUs and staff in implementing Kangaroo Care as a standard of care
Healthcare providers’ perceptions of barriers and enablers to the practice of Kangaroo Care in Neonatal Intensive Care Units in British Columbia

S. Coutts, A. Woldring, L. Brotto, H. Osiovich, J. De Salaberry, & A. Pederson
Kangaroo Care Pre-Conference Workshop
February 20th, 2020
Preterm birth in BC

380,000 babies born in Canada each year
45,000 are born in BC
11% are preterm births
1/5 of those require resuscitation

Premature birth rates differ by health authority

9.5 days is the average NICU stay
85% of preterm births are late preterm: 34-37 weeks
587 million is the estimated Canadian economic burden of premature birth
1/3 of infant deaths are a result of a premature birth

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CHILDREN BORN PRETERM HAVE A HIGHER LIKELIHOOD OF:

Requiring specialized supports⁷,⁸:
- Intensive healthcare
- Psychological supports
- Special education
- Developmental services

Neurodevelopmental disabilities⁹,¹⁰:
- Hearing loss
- Vision impairment
- Intellectual disability
- Movement disability
- Behavioural issues

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PARENTS OF PRETERM INFANTS:

Can develop feelings of:

- Grief
- Distress
- Guilt
- Anger

Have an increased risk of:

- Post-traumatic stress disorder
- Depression and anxiety
3 Components of Kangaroo Care

Kangaroo Care is the holding of an infant (wearing only a diaper) in an upright and prone position skin-to-skin against a parent’s bare chest (chest-to-chest). A wrap or blanket is often used to keep the baby secure and warm.

(Adapted from World Health Organization, 2003)
## Improved Outcomes

<table>
<thead>
<tr>
<th><strong>Physiological processes</strong></th>
<th><strong>Cognitive development</strong></th>
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<tbody>
<tr>
<td>• Decreased response to stress and pain</td>
<td>• Improved executive functioning</td>
</tr>
<tr>
<td>• Improved autonomic functioning</td>
<td>• Intelligence</td>
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<thead>
<tr>
<th><strong>Parental mental health</strong></th>
<th><strong>Behavioural control</strong></th>
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<tr>
<td>• Decreased depression and anxiety</td>
<td>• Improved attention</td>
</tr>
<tr>
<td>• More positive parent-infant interactions</td>
<td>• Increased productivity</td>
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<table>
<thead>
<tr>
<th><strong>Improved sleep organization</strong></th>
<th><strong>Improved breastfeeding success</strong></th>
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<tr>
<td>• Improved sleep-wake cycles</td>
<td>• Positive impact on breastfeeding initiation and duration rates</td>
</tr>
<tr>
<td>• Longer quiet sleep</td>
<td>• Improved milk production</td>
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Project Rationale

• This study aims to understand:
  – The current state of Kangaroo Care in BC’s NICUs
  – The barriers and enablers to Kangaroo Care implementation
Timeline of research project

Baseline
- Healthcare provider interviews
- 11 NICUs
- Fall 2018 to Spring 2019

Implementation
- Healthcare provider education
- Parent education
- Wraps
- Spring 2019

Follow-up
- Healthcare provider interviews
- Parent interviews
- Fall 2019 to Winter 2020

Analysis and reporting
- Manuscript submissions to peer reviewed journals
- Spring 2020
Methods

• Semi-structured interviews
• \( n=34 \)
• Interviews were recorded, transcribed, coded, and analysed
• Field notes
• Observations
<table>
<thead>
<tr>
<th>Health Authority</th>
<th>Hospital</th>
<th>Pre-implementation Interviews</th>
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<tbody>
<tr>
<td>Northern Health</td>
<td>University Hospital of Northern British Columbia</td>
<td>2</td>
</tr>
<tr>
<td>Fraser Health</td>
<td>Surrey Memorial Hospital</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Royal Columbian Hospital</td>
<td>1</td>
</tr>
<tr>
<td>Vancouver Island Health</td>
<td>Victoria General Hospital</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nanaimo Regional Hospital</td>
<td>2</td>
</tr>
<tr>
<td>Vancouver Coastal Health</td>
<td>St Paul’s Hospital</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lions Gate Hospital</td>
<td>1</td>
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<tr>
<td></td>
<td>Richmond General Hospital</td>
<td>1</td>
</tr>
<tr>
<td>Provincial Health Services</td>
<td>BC Women’s Hospital</td>
<td>10</td>
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<tr>
<td>Interior Health</td>
<td>Royal Inland Hospital</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Kelowna General Hospital</td>
<td>5</td>
</tr>
<tr>
<td>Profession of participants</td>
<td>Number of interviews</td>
<td></td>
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<tr>
<td>--------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Registered Nurse</td>
<td>10 (30%)</td>
<td></td>
</tr>
<tr>
<td>Nurse Educator</td>
<td>7 (20%)</td>
<td></td>
</tr>
<tr>
<td>Neonatologist</td>
<td>2 (5%)</td>
<td></td>
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<tr>
<td>Program Coordinator</td>
<td>1 (3%)</td>
<td></td>
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<tr>
<td>NICU Manager/Director</td>
<td>5 (15%)</td>
<td></td>
</tr>
<tr>
<td>Midwife</td>
<td>1 (3%)</td>
<td></td>
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<tr>
<td>Lactation Consultant</td>
<td>1 (3%)</td>
<td></td>
</tr>
<tr>
<td>Physiotherapist</td>
<td>1 (3%)</td>
<td></td>
</tr>
<tr>
<td>Respiratory Therapist</td>
<td>1 (3%)</td>
<td></td>
</tr>
<tr>
<td>Occupational Therapist</td>
<td>3 (9%)</td>
<td></td>
</tr>
<tr>
<td>Nutritionist/Dietician</td>
<td>1 (3%)</td>
<td></td>
</tr>
<tr>
<td>Patient Care Coordinator</td>
<td>1 (3%)</td>
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Results

• Healthcare providers’ reported perceived barriers and enablers to Kangaroo Care in the NICU
• There is variation in how infants receive Kangaroo Care depending on when, where, and by whom they are cared for
• The extent to which these barriers and enablers influence the practice is highly dependent on the context of each NICU
• The barriers and enablers are organized into the following four themes
1. NICU physical environment

“I guess some of our other chairs had broken, and we didn’t have enough chairs for all of the parents to sit, so we had to run up to maternity and bring stuff down. Like it was embarrassing.” (Nurse Educator)

“...Just when the NICU is full, I think that sometimes with all of the juggling of trying to get around each of the kind of little spaces with lots of parents that are there, and they want to have a little bit of privacy as well.” (Occupational Therapist)

“It is huge, and especially when we are one of the level three—like it makes me so sad that if you come down from wherever, and the only place to come is here, you are stuck here for six months and you are paying out of pocket.” (Nurse Educator)
2. Healthcare providers’ beliefs about Kangaroo Care

“There again, the issue comes up over parent’s understanding of how important it is, and why they need to reorganise their life around it. And their ability to speak all their problems and take help.” (Director)

“Well, we do Kangaroo Care, but I don’t know that it’s like officially Kangaroo Care. We encourage skin-to-skin.” (Program Coordinator)

“Yeah, but that’s a barrier. So if you’re looking at medium to long-term outcomes, so we’re relying on bedside nurses to frontline this and communicate a lot of this. But honestly, I’m not sure that’s on their radar that much at all, medium to long-term outcomes, and what they are doing affects the medium to long-term outcome, you know what I mean?” (Medical Lead)
3. Clinical Practice Variation

“Yeah, because if God forbid you take that kid out to do something that’s theoretically great and then you break the baby.” (Physiotherapist)

“If you can work on a model where parent’s are more in charge of the care of their baby, then you reduce the workload on the staff. But as long as the staff are the gatekeeper to all of that, it’s going to feel like a lot of work for them.” (NICU Manager)

“We’ve failed this mom that she has to be the one to ask us. And how is it that we haven’t offered it to her in these seven days.” (Clinical Associate)

“We’ve done the policy and education so at some point we have to say that this is important enough that people are held accountable if they’re not following hospital policy.” (Lactation Consultant)
4. Parental Presence

“Yeah you talk about, ‘Oh yeah skin to skin, oh you’re going to do it for the feed. That’s great’. I think it ends there.” (Registered Nurse)

“But more what messaging has this mother received that she’s not here. You know that she hasn’t received the support to understand that her presence is invaluable to her baby.” (Lactation Consultant)

“The second thing is because right now we still have 2 hours closed our nursery. Yeah because shift change and then our colleague is still concerning about confidentiality issue.” (Registered Nurse)

“If they don’t have extended family that are able to help provide care then that often really limits the amount of time that they’re able to spend with babe.” (Registered Nurse)
Putting it all together

• Do these themes resonate with you?
• Are there similarities or differences to the Kangaroo Care practices in your NICU?
• Are there solutions to some of the barriers?
• Can we focus on the enablers?
Kangaroo Café

• Conversations and idea sharing are the core processes
• Explore general questions for each table
• Listen together for patterns, insights, and deeper questions
• Harvest: Record ideas and report back
How can we support Kangaroo Care going forward?

- Clinical documents
- Sources of funding
- Family-centered care
What’s next?

• UBC continuing professional development course
  – Strengthening Kangaroo Care for Preterm Infants in BC
  – 4 modules:
    • The introduction to Kangaroo Care
    • The evidence for Kangaroo Care
    • How to safely practice Kangaroo Care
    • Strengthening Kangaroo Care in NICUs
Next steps

• Post-implementation interview analysis
  – Parent interview
  – Healthcare provider

• Manuscript submission

• Project summary for sites involved
Thank you