# Provider-Friendly E-Learning for Healthcare Quality Improvement Initiatives

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#### Conflict of Interest

I am the founder of Liminality, a company to ensure that Alberta FlCare<sup>™</sup> (also known as Merge) is accessible to NICUs around the world.

# Research Context - Alberta, Canada





# **Learning Objectives**

#### At the end of this presentation, you will be able to:

- Describe theory underlying e-learning for healthcare providers
- Describe implementation and outcomes of an e-learning initiative on family integrated care practices in Alberta NICUs

# Why e-learning for healthcare providers?

#### **Healthcare Providers' Learning Needs**

(Gottfredson & Mosher, 2012)

- Learn basic information about a topic (Learning New)
- Learn more in-depth information about a topic (Learning More)
- Learn how to solve a medical problem (Solve)
- Learn how to deliver safer or more effective patient care (Apply)
- Review things already known (Learning More)
- Learn the latest advances or developments in an area (Change)

#### **Education for Healthcare Quality Improvement**

(DesRosier et al., 2011; Sadid-Zadeh et al., 2021)

#### **In-Person Learning**

- Limited access for staff; typically, leaders and administrators participate
- Increased time for travel; parking and venue costs
- Interactivity requires design, but can occur organically
- Fewer technology issues

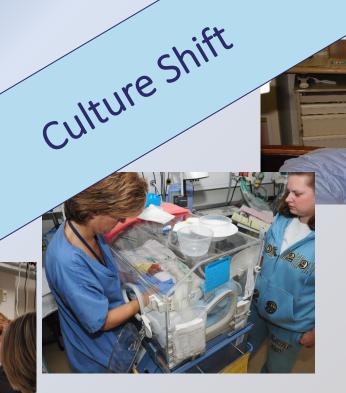
#### **E-Learning**

- Staff across shifts can participate
- More convenient; less cost
- Translation to multiple languages
- Requires intentional design of interactivity
- Multiple formats accommodate different learning styles
- Quick links to external resources
- Downloadable materials extend learning opportunities
- Less anxiety producing for students

# Provider-Friendly E-Learning:

Alberta FlCare<sup>™</sup> cRCT

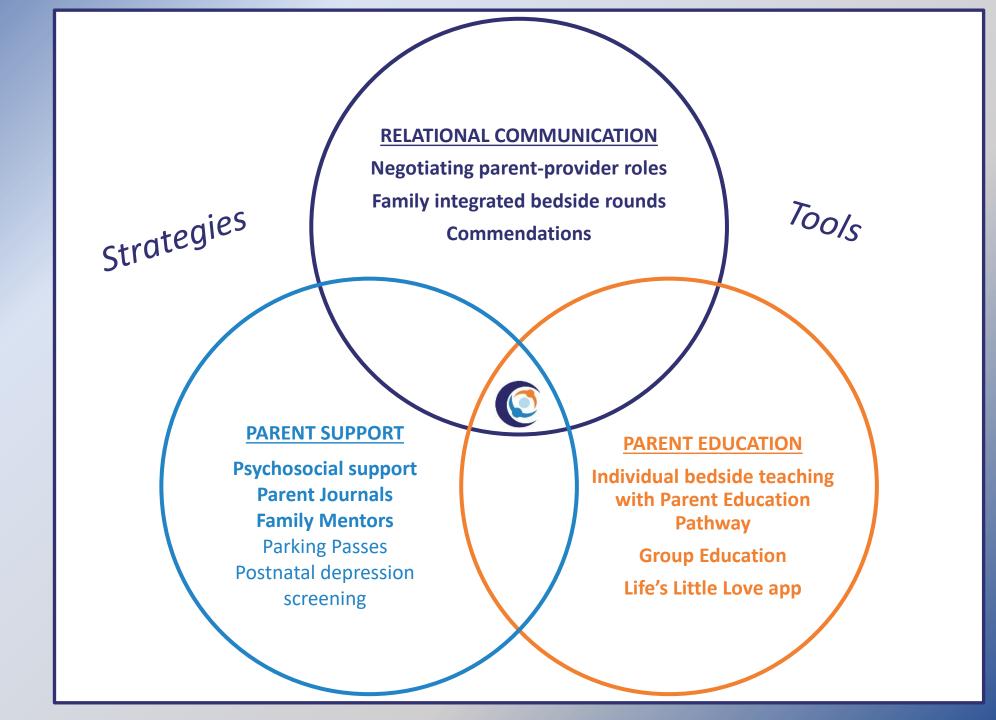




"... we started off with the nurses providing all her [baby's] care, 3 weeks later – [we were] doing it all with little to no help from the nurses."

[Mother, ID 706]

# Alberta FlCare<sup>™</sup>



# Exemplar Modules:

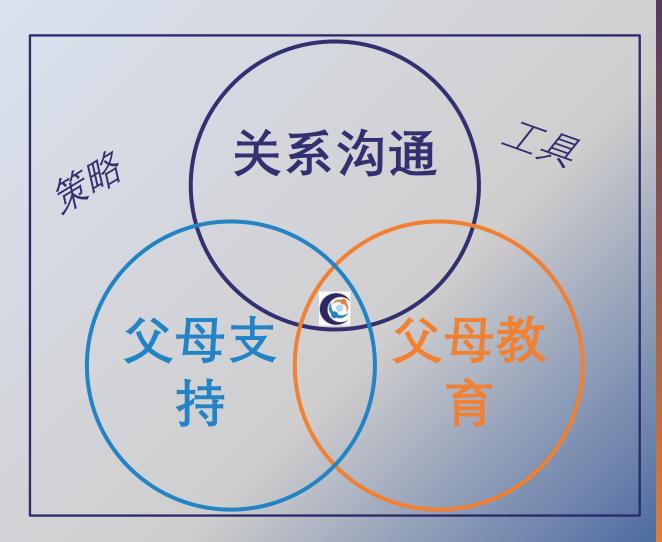
Chinese and English

# Example Module 2: 阿尔伯塔FICare™

根据医护人员的建议,最初的III级家庭参与式护理模式被改编运用于II级护理环境。

阿尔伯塔FICare™模式以理论为基础, 附有详细的策略和实用的工具。它由 三个泡泡(或组成部分)组成:

- 关系沟通
- 父母教育
- 父母支持

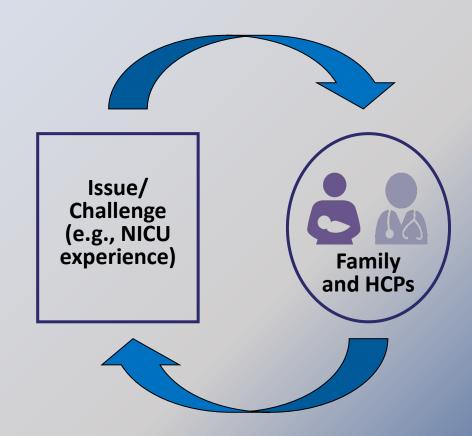


# Example Module 3b: Actively Plan Together

#### Consider this mom's experience:

"The nurse also began bottle feeding when I went downstairs to walk my parents out and it was emotional for me because I didn't feel I had control over the care for my son."

- HCPs and families work together to interact with issues/challenges
  - e.g., ask parents "What should I know about you/your family/your baby that would help me give you the best care today?"
- HCPs support and build parent confidence and competence in the care of their baby
- As parents become integrated in care, parent-HCP roles are characterized by partnership and mutual respect



#### Alberta FlCare™ cRCT

#### **Primary Research Question:**

Does Alberta FlCare<sup>™</sup> for moderate and late preterm infants with admission to Level II NICU reduce hospital length of stay?

#### Method:

cRCT in 10 Level II NICUs in Alberta (Benzies et al., 2018)

- > Control sites: Standard care
- ► Intervention sites: Alberta FICare<sup>™</sup>



#### **RESEARCH ARTICLE**

# Effectiveness of Alberta Family Integrated Care on infant length of stay in level II neonatal intensive care units: a cluster randomized controlled trial



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Reduction in the length of stay by 2.5 days (95% CI 0.4, 4.6) favoring Alberta FICare

### Early Adopters and Feasibility



- Validated in 14 NICUs
- 2000 neonatal care providers trained
- Helped over 12,000
   babies and their families



- 100 neonatal care providers in training
- Partnership ongoing

#### **Publications**

- McNeil, D.A., Benzies, K. M., Zanoni, P., Kurilova. J. (2021). Alberta Family Integrated Care (FICare)™: From engaged clinicians in a cluster randomized controlled trial to health system partnership in scale and spread across a province. In: McCutcheon C, Reszel J, Kothari A, Graham ID, editors.

  How We Work Together: The Integrated Knowledge Translation Research Network Casebook. Volume 4, 16-19. Ottawa, ON: Integrated Knowledge Translation Research Network. Available from: <a href="https://iktrn.ohri.ca/projects/casebook/">https://iktrn.ohri.ca/projects/casebook/</a>
- Benzies, K. M., Aziz, K., Shah, V., Isaranuwatchai, W., Scotland, J. Larocque, J., Mrklas, K. J., Naugler, C., Stelfox, H. T., Chari, R., Soraisham, A., Akierman, A. R., Phillipos, E., Amin, H., Hoch, J., Zanoni, P., Kurilova, J., Lodha, A., and the Alberta Family Integrated Care (FICare) Team. (2020, November 20). Effectiveness of Alberta Family Integrated Care (FICare) in Level II Neonatal Intensive Care Units (NICU) on infant and maternal outcomes: a provincial, pragmatic, cluster randomized controlled trial. *BMC Pediatrics*, 20:535. https://doi.org/10.1186/s12887-020-02438-6
- Benzies, K. M., Shah, V., Aziz, K., Isaranuwatchai, W., Palacio-Derflingher, L., Scotland, J., Larocque, J., Mrklas, K., Naugler, C., Suter, E., Stelfox, H. T., Chari, R., Lodha, A., & Alberta FICare Level II NICU Study Team. (2017). Family Integrated Care (FICare) in Level II Neonatal Intensive Care Units: Study protocol for a cluster randomized controlled trial. *BMC Trials*, 18, 467.
- Benzies, K. M. (2016). Relational communications strategies to support family-centered neonatal intensive care. *Journal of Perinatal and Neonatal Nursing*, 30(3), 233-236.
- Benzies, M., Shah, V., Aziz, K., Lodha, A., Misfeldt, R. (2018). The health care system is making 'too much noise' to provide family-centred care in neonatal intensive care units: Perspectives of health care providers and hospital administrators. *Intensive and Critical Care Nursing*. In press, 11 May 2018.

#### **Trainee Publications**

- Brockway, M. Benzies, K.M., Carr, E., & Aziz, K. (2018). Breastfeeding self-efficacy and breastmilk feeding for moderate and late preterm infants in the Family Integrated Care trial: a mixed methods protocol. *International Breastfeeding Journal*, 13:29
- Brockway, M., Benzies, K. M., & Hayden, A. (2017). Interventions to improve breastfeeding self-efficacy and resultant breastfeeding rates: A systematic review and meta-analysis. *Journal of Human Lactation*, 33(3), 486-499.

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- Alberta Children's Hospital Research Institute (Play Study)
- Canadian Institutes of Health Research (18-month follow-up)
- Maternal Newborn Child and Youth and Critical Care Strategic Clinical Networks
- AHS Analytics
- Strategy for Patient-Oriented Research
- Alberta Public Laboratories
- Faculty of Nursing, University of Calgary
- Graduate Students, Universities of Calgary and Toronto
- · Pilar Zanoni, Project Manager
- Jana Kurilova, Project Coordinator
- Many Research Assistants

















# FICare Team Plus





# Comments? Questions?

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