Family-Centered Care in the SCN and NICU

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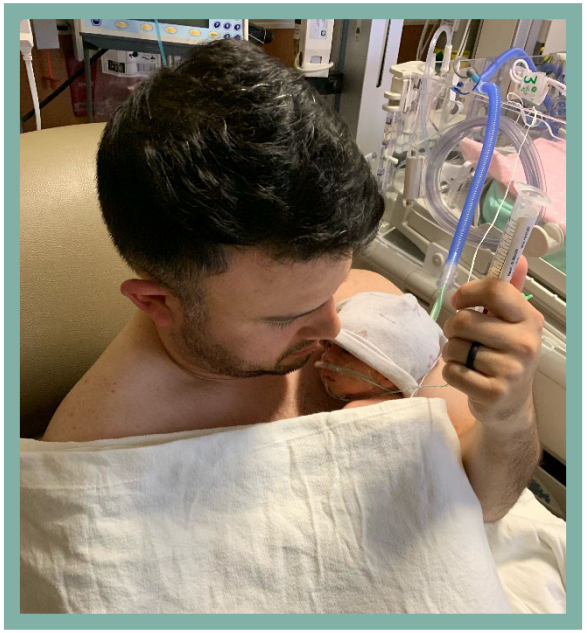

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Proposed Neonatal Initiatives

Neonatal Abstinence Syndrome 2.0

Antimicrobial Stewardship in EOS/LOS

Managing Tiny Babies

Family-Centered Care

Family-Centered Care

Involving the family in their infant's care can improve infant outcome at and beyond discharge and improve family experience and clinician/caregiver satisfaction. Yet, many families face barriers and SCNs/NICUs experience challenges in achieving quality FCC.

We propose three processes for continuous quality improvement:

1) welcome families into the care team - ensuring that families are respected as team members; incrementally participatory in their infant's care; confident about care after discharge; and fully attuned to their infant's personality;
2) develop tools to assess the domains of respect; communication; access; family integration into care; family confidence in and competency of care; and global family readiness for discharge; and
3) develop strategies to use the these tools to improve these processes with each family.

- Each unit will be able to benchmark and improve the quality of their family-centered care and track infant outcomes.

Family-Centered Care

Family-centered care is defined as a shared approach to the planning, delivery, and evaluation of healthcare that is based upon a partnership between healthcare professionals and family caregiver(s).

There are four essential domains of FCC:

1) Dignity and respect
2) Information sharing
3) Participation
4) Collaboration

Institute for Patient- and Family-Centered Care

Johnson BH & Abraham MR (2012). Partnering with Patients, Residents, and Families: A Resource for Leaders of Hospitals, Ambulatory Care Settings, and Long-Term Care Communities.

Challenges of the SCN/NICU Mother

Often burdened with increased psychosocial, mental health, environmental, and socioeconomic challenges during pregnancy and after delivery that correlate with increased adverse outcomes. (Hawes 2016, McGowan 2017, 2019)

Mothers with mental health challenges (McGowan 2016, 2018):

- Self-report poorer readiness for infant discharge, less family support, increased concern about themselves and infant.
- Infant visit to ED more likely within 90 days after discharge.

Mothers with social risk factors (Medicaid, non-English speaking): (Vohr 2017, 2018; Liu 2018)

- Increased infant visits to ED
- Higher rate of infant rehospitalization

Risks to the SCN/NICU Infant

Biologic risk: Discrete medical morbidities that may cause brain injury or alter brain development

Proximal risk: Decreased parental involvement (deficit of touching, soothing, language and communication, interaction)

Distal risk: Socioeconomic, cultural, educational adversity; racism; impaired maternal mental health; poor extended family support.

Maternal Care in Animals

Study of rat mothers and pups: high licking and grooming (L&G) vs. low L&G

Pups exposed to high L&G compared to low L&G mothers exhibited

- Less fear
- Reduced hypothalamic-pituitary response to stress, persisting into adulthood

Cross fostering resulted in reversal of effects

Possible effects on pup epigenome (increased glucocorticoid receptor gene promoter in hippocampus)

Maternal care may program offspring behavior over the lifetime

Stroking Care by Human Mothers

Study of mothers with history of inter-partner psychological abuse and their infants

Maternal self-reports of frequency of stroking infants at 5 and 9 weeks

Results:

Prenatal maternal depression associated with decreased infant physiological adaptability and increased negative emotionality at 29 weeks if mother reported low stroking (Sharp H et al PLoS One 2012)

Prenatal anxiety associated with infant internalizing and anxiety/depression per Child Behavior Checklist High at 2.5 years if mother reported low stroking stroking vs. low stroking of infantstudy of rat mothers and pups: high licking (Sharp H et al Psychol Med 2014)

Results analogous to the animal study of L&G in rat mothers and pups

The Developing Brain

From 10 weeks gestation to term, the fetal brain undergoes a very complex sequence of maturation.

- Neurogenesis and proliferation
- Migration
- Myelination
- Synaptogenesis and pruning

Number of neurons increases from 13 billion at 5 months to 100 billion at term

The Developing Brain

Consciousness develops as connections are made between the thalamus and the cerebral cortex which transmit auditory and visual input to the cortex (24-32 weeks)

Receptive and adaptive to nuances in language at least as early as 32 weeks: vocalizations and “conversation turns”; most infant language input comes from parents

Environment for FCC

Provides appropriate physical space to encourage family caregiver involvement

Advantages/disadvantages of single family rooms

Facilitates optimal breast feeding

Encourages skin-to-skin care

Allows infant to discriminate touch (stroking, massage, vibration) and voices (talking, reading, singing) of caregivers

Promotes meaningful interactions between the clinician caregivers and the family caregivers (participation, reflective listening, education)

Family Engagement QI Collaborative Key Driver Diagram

Aim Statement	Primary Drivers	Secondary Drivers	Potential Change Concepts
By August 2022, hospitals will improve family engagement in NICUs by: *Reduce disparities in key drivers by race/ethnicity and primary language*	Adequate and timely communication regarding infant medical care between staff and families *Measure: 1) Parental presence on daily rounds; 2) Timing of first family meeting; 3) Parent report of being informed consistently*	**Language barriers and lack of family presence** Lack of timely and frequent family updates Inconsistency of infant care plans among providers	• Increase use of interpreter services often and early • Use of multi-lingual virtual platforms • Reduce parking cost; Provide public transportation vouchers; Minimize restriction of sibling visitation; On site childcare for siblings; Overnight accommodations for families; Provide meals as needed • Improve communication among medical consultants and primary team; improve communication among primary team and nurses
	Comprehensive social services and supports for families *Measure: 1) Date of first social worker contact after admission; 2) Postpartum depression screening performed in the hospital; 3) Standardized assessment of unmet basic needs; 4) Parental report of social, depression screening and assessment of unmet basic needs*	**Language barriers and lack of family presence** Current social services available not comprehensive to address all needs Lack of bandwidth of social workers due to competing priorities Lack of standardization of procedures to assess for mental health and unmet basic needs	• Increase use of interpreter services often and early • Use of multi-lingual virtual platforms * Off load" tasks like screening for PPD and unmet basic needs to other staff members besides social workers. • Utilize parent peer support groups • Use standardizes screening tools and streamline existing referral systems
	Family engagement in hands-on NICU care *Measure: Skin to skin and breastfeeding continuation (through day 7, 28, and discharge)*	Language barriers and lack of family presence Families and NICU staff have unclear expectations about parental role in the NICU; lack of parental empowerment Lack of access to hospital grade pumps, restrictive policies for skin-to-skin care	• Increase use of interpreter services often and early • Reduce parking cost; Provide public transportation vouchers; Minimize restriction of sibling visitation; On site childcare for siblings; Overnight accommodations for families; Provide meals as needed • Educate family on all aspects of care they can participate in; peer-support groups; Standardize family participation in infant's care (FICare) • Introduce MM education and support during prenatal period; Early pumping initiation; Early and frequent skin to skin; Address lactation issues by phone/telehealth
-- Chart abstracted measures -- Family reported measures	Family participation in discharge planning *Measure: 1) Timing of initiation and completion of discharge teaching for families; 2) parental report of discharge readiness; safe sleep adherence post-discharge;*	Language barriers and lack of family presence Lack of shared decision making in discharge planning Compliance with safe sleep practices in NICU	• Increase use of interpreter services often and early • Use of multi-lingual virtual platforms to deliver education • Reduce parking cost; Provide public transportation vouchers; Minimize restriction of sibling visitation; On site childcare for siblings; Overnight accommodations for families; Provide meals as needed • Standardize infant sleep practices and environment for all NICU infants

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Opportunities for Practice Evolution

Assess and address maternal adverse mental health and stress

- Decrease both maternal and infant stress

Identify and address needs of family and infant

- Facilitate visitation
- Improve communication
- Integrate family into care discussions and decisions
- Provide culturally sensitive environment

Encourage active maternal involvement in infant care

Improve transition to home processes

PAIRED PLUS PILOT

Multidimensional opportunity to improve FCC

Centerpiece QI initiative: Skin-to-skin care

Identify areas of strength and weakness in your ability to encourage FCC in your unit

Target one or two interventions among the 4 domains that are high opportunity (realistic and feasible in your environment): browse the toolbox!

Coaching calls

We need your feedback to refine everyone's efforts!

PAIRED Pilot: Skin-to-Skin Care (SSC)

Definition: skin-to-skin or chest-to-chest contact between an unclothed infant and their family caregiver's bare chest. Also called kangaroo care.

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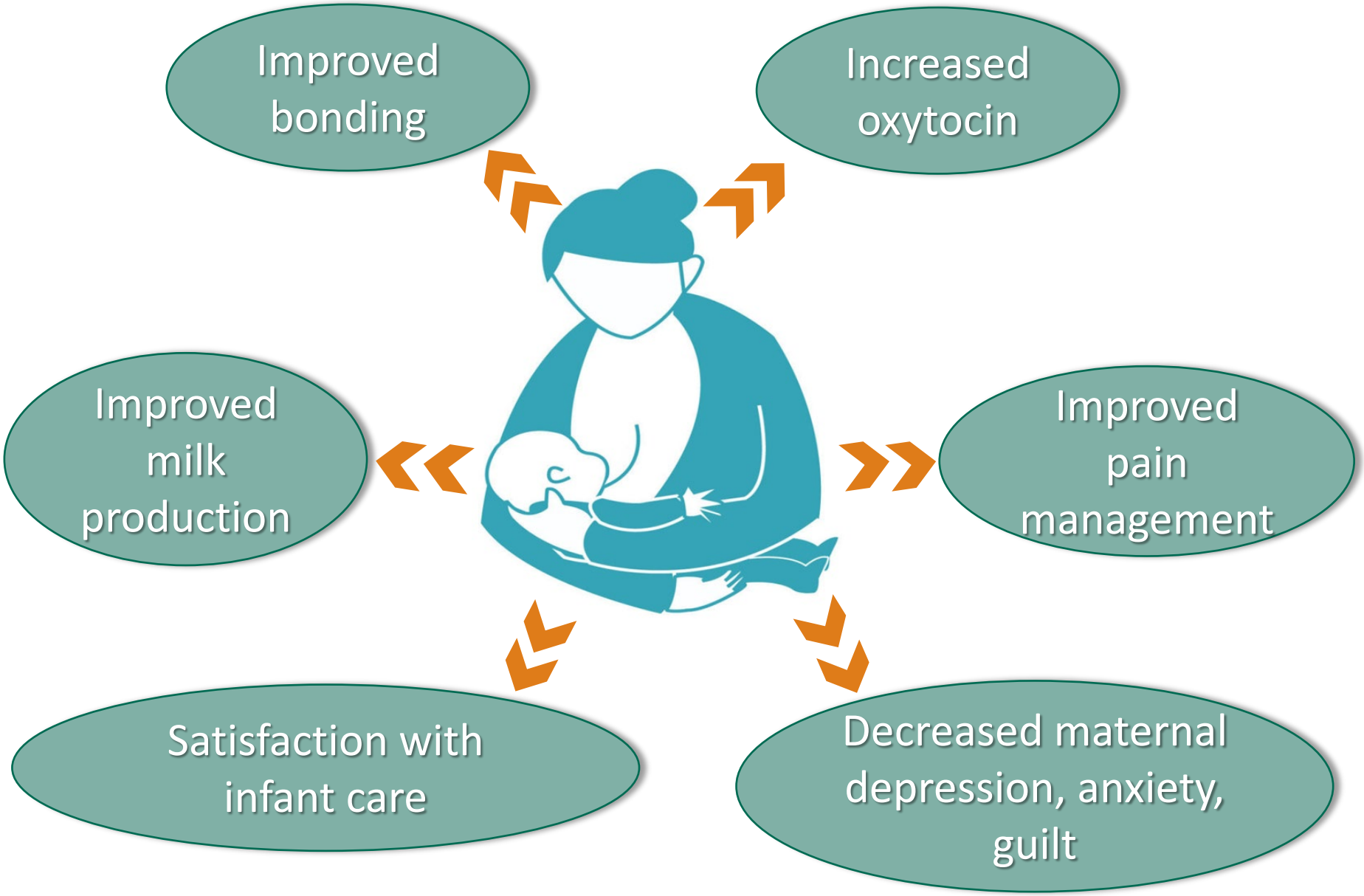
Benefits of SSC – Mother-Infant Dyad



Benefits of SSC - Infant

Improved

- Autonomic function & neuroregulation
- Neurodevelopment
- Cerebral volumes
- Cognitive skills
- Oxytocin levels
- Weight, length, head circumference growth
- Pain management
- Breastfeeding at discharge

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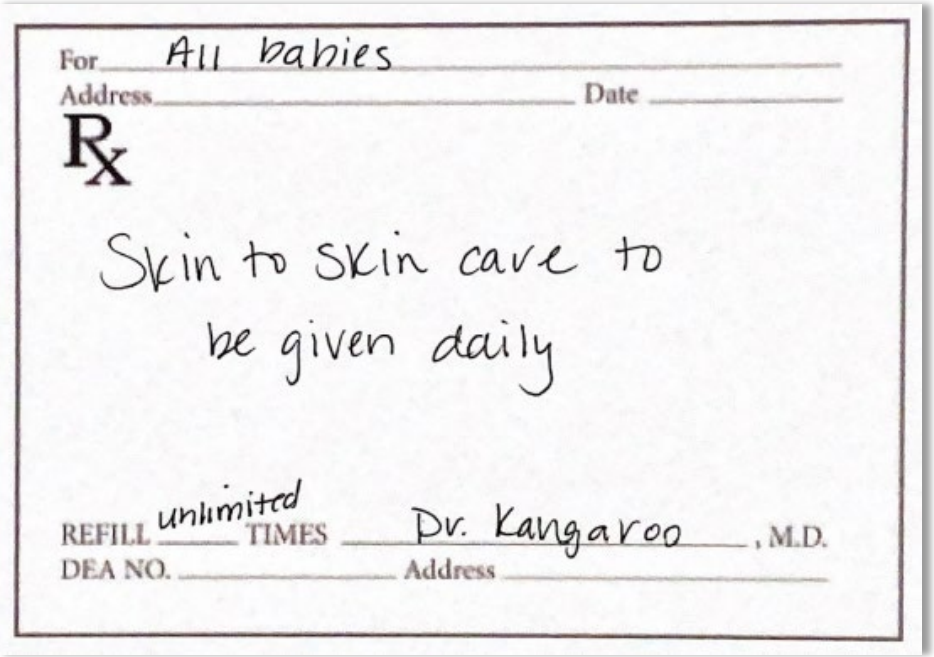
Benefits of SSC - Infant

Decreased

- Physiologic stress responses
- Motor functional deficits
- Hospital length of stay
- Mortality
- Infection/sepsis
- hypothermia

Recommendations for SSC

- Recommended by World Health Organization, American Academy of Pediatrics, Academy of Breastfeeding Medicine, Neonatal Resuscitation Program, among many others..
- Reliant on unit-specific guidelines



But this should be standard of care! A prescribed medication!

Barriers to SSC - Staff

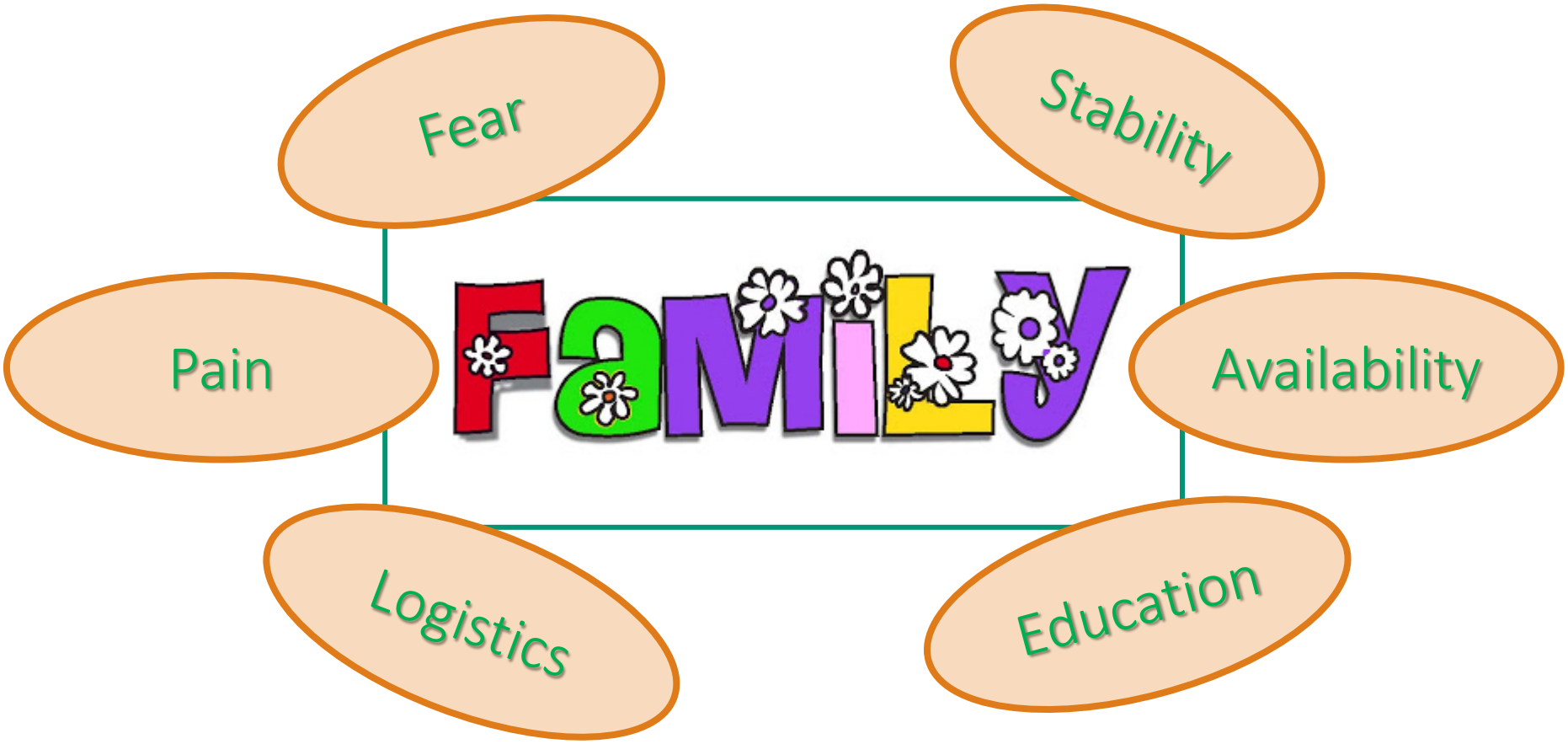
Time

Stability

Logistics

Education

Barriers to SSC - Family



How we can help with barriers?

- ***LOOK*** for them!
- ***ASK*** about them!
  - Ask families
  - Ask staff
- ***EDUCATE*** about them!
  - Educate families
  - Educate staff

Use Resources

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Aim Statement

Primary Aim:

"For each participating NICU to achieve a 20% increase from baseline in the percentage of infants who receive skin-to-skin care from at least one family caregiver within 3 days of clinical eligibility as defined by individual unit protocols by June 2023."

Change Ideas

Encourage family caregiver participation in early SSC

- Develop SSC eligibility guidelines

Create a culturally sensitive environment for SSC

- Cultural humility
- Chairs
- Access to food and water
- Privacy

Educate on the benefits of SSC

- Families and staff

Change Ideas

Initiate competency training on SSC

- For families and staff
- For seated and standing infant transfers
- Mock up infant transfers

Consult families to help revise policies that limit family interaction with infants

Standardize documentation of SSC episodes

Photos used with permission

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How can FPQC help?

Provide a useful toolkit and resources

- Key driver diagram
- Change ideas
- Educational materials
- PDSA samples
- Metric ideas

Give rapid data feedback for tracking progress

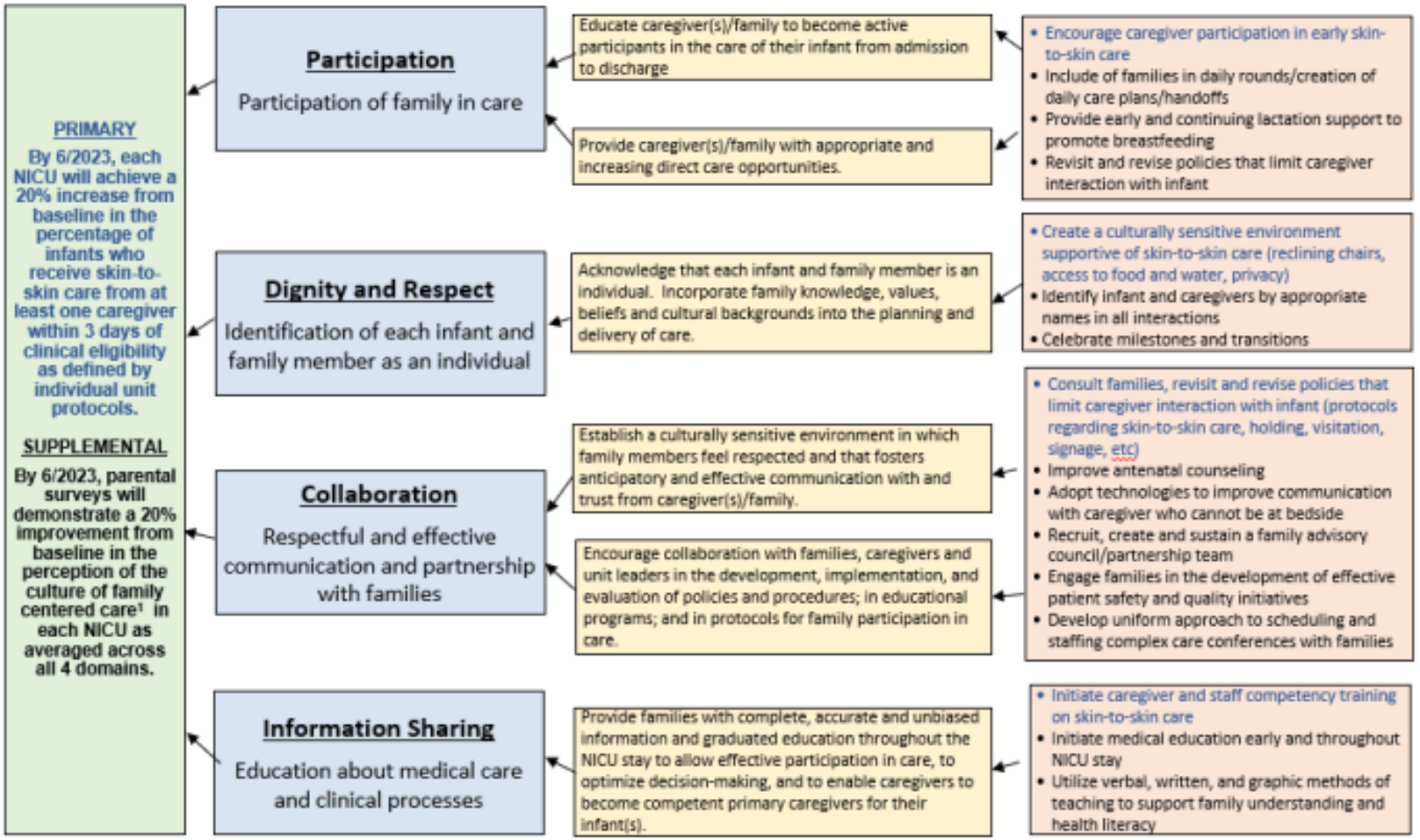
- Monthly reports

Support monthly coaching calls

- Share successes
- Advice on challenges and barriers
- Updates
- Receive consultation/assistance

Key Driver Diagram

PAIRED Pilot



Family-centered care is defined as a shared approach to the planning, delivery, and evaluation of healthcare that is based upon a partnership between healthcare professionals and families of patients. There are four essential domains of FCC: 1) family participation in care, 2) dignity and respect, 3) family collaboration, and 4) information sharing.

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Videos

Video: *How to Transfer Babies*

https://www.youtube.com/watch?v=VOjGhwMuWFU&feature=emb_logo

See the PAIRED Toolkit for more ideas!

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Thank You

Questions?

Florida Perinatal
Quality Collaborative