Family and Infant Developmental Care in the NICU and Beyond

In perinatal care today, there continues to be an important focus on evidence-based practice and the need to provide care integrating the most up-to-date research. Current research in perinatology goes beyond the scope of infant developmental care, and focuses on the importance of training, education and ongoing support for families. In the Neonatal Intensive Care Unit (NICU), this is especially important. Family centered developmental care (FCDC) not only enhances a baby’s development, but also fosters a parent’s lifelong relationship with a child (Craig et al., 2015).

The National Perinatal Association (NPA) published recommendations for the psychosocial support of NICU parents. This newsletter details a current perinatal research on developmentally appropriate care and considerations for implementing them in line with FCDC. Current research on developmental care is highlighted, including research on positioning and sensory integration. Additionally, this newsletter lays out recommendations for involving the family in their infant’s care, with a focus on preparing them in the transition from NICU discharge to home.

Family Centered Developmental Care (FCDC)

Family Centered Developmental Care (FCDC) acknowledges that the family is a vital member of the NICU team. It is care that recognizes the family as true collaborators in the health care of their child thereby involving families in the decision-making of their child’s health care plan (Craig et al, 2015; Hall et al., 2015). This includes recommendations for supporting parents in their role as caregivers in the NICU, educating and training the NICU healthcare team in FCDC, and advocating for the development of NICU policies that encourage and facilitate FCDC (Craig et al, 2015).

NPA’s Recommendations for the Psychosocial Support of NICU Parents

Psychosocial support that is integrated into NICU care enhances outcomes for parents and infants, such as improving parents’ function as caregivers and improving their relationship with their babies. In order to provide developmentally supportive care, it is just as important to provide psychosocial support to the family as it is to provide the best medical care to the infant (Hall et al., 2015). NPA published interdisciplinary recommendations for the psychosocial support of NICU Parents. You can access these guidelines at http://support4nicuparents.org/interdisciplinary-recommendations-for-psychosocial-support-of-nicu-parents/
Sensory Integration and Positioning Needs in the NICU

Sensory Needs of Premature and Medically Fragile Infants

The womb environment in which a fetus develops is dark, warm, and allows them to grow and thrive. For an infant born premature and in the NICU environment, it is challenging to provide the adequate sensory stimulation that the baby would have had in the womb.

By 30 weeks a fetus’s sensory system is fully developed, and they are sensitive to all physical stimulation including touch, temperature, pressure, and pain (UTSW Medical Center, 2017). For this reason, it is beneficial that a premature infant in the NICU receives external touch from the NICU staff and more importantly, skin-to-skin contact (kangaroo care) from the parent (Ardiel & Rankin, 2010).

What does a NICU Therapist Do?

All healthcare professionals in the NICU are knowledgeable in infant care and trained to support infant development. However, NICU providers in the developmental team use their clinical expertise specifically to enhance and support healthy development. This team may include developmental neonatal therapists including occupational therapists, physical therapists, speech therapists, as well as infant developmental specialists, psychologists, and specially trained doctors and nurses (Craig et al., 2015). Neonatal therapists use a neuroprotective approach in providing developmentally appropriate therapy to infants that promotes the infant’s physiological function and neurostructural development (Craig & Smith, 2020). This care involves promoting the parent-infant relationship, and integrating therapy to improve developmental outcomes including musculoskeletal, neuromotor, sensory, and neurobehavioral (NANT, 2014).

Family Centered Developmental Care

Family-centered developmental care (FCDC) encourages family to be involved in providing developmentally supportive care to their child (Craig et al., 2015). Research has shown that babies had better weight gain when their mothers were educated on how to provide simple developmentally appropriate sensory stimulation through a program called Hospital to Home Transition – Optimizing Premature Infant’s Environment (White-Traut et al, 2015). With the education and guidance from the NICU developmental team, mothers and fathers should be encouraged to provide frequent hands-on care often to their baby as deemed medically appropriate. This includes skin-to-skin contact, creating preferred sensory exposures (sound, infant touch and pressure), and participate in oral feeding experiences and breastfeeding when possible. (Craig et al., 2015).

Parents should be supported and educated on how to provide supportive positioning and handling for their baby to help them feel competent as caregivers (Craig et al., 2015). Along with parental education, parents should be encouraged to advocate for the neuroprotection of their babies. Parents can talk to their doctors about the sensory and positioning needs of their baby, and be involved with shared-decision making of their child’s care plan.

The Next Step, Changing Hospital Regulations

There is growing evidence that placing infants into different positions such as prone is beneficial (Wiley, Raphael, & Ghanouni, 2020). In order to promote long term change, NICUs need to adjust regulations to enact these principles into practice. Not every NICU has neonatal therapists in their developmental team, which can negatively impact the frequency that positioning is integrated into an infant’s care plan. Furthermore, in order to support families assisting with sensory integration and positioning, NICU administration should consider fully adopting FCDC principles into their NICU policy (Craig, et al, 2015).
Transitions from NICU to Home

For many years, the main focus of the NICU health care team has been survival of the baby with minimal medical complications. There is not enough attention given to supporting the psychosocial needs of parents and preparing to return home with their new infants. NICU teams should include specialized training to support the parent-infant relationship and educate them for what they may expect after bringing their baby home (Purdy et al., 2015).

Supportive Discharge

Preparations for the transition to home should start at the time the baby is admitted to the NICU. Parents should be educated on criteria for discharge and be given opportunities to develop competence and self-efficacy in the care of their infant. Parents should also be made knowledgeable about safety concerns going home such as Shaken Baby Syndrome and Back to Sleep. Parents should also be provided with follow-up resources such as referrals to developmental care therapists and breastfeeding support (Craig et al., 2015).

As part of the Interdisciplinary Recommendations for the Psychosocial Support for NICU parents, recommendations were created as a guide for supporting discharge for NICU families.

Recommendations for supportive discharge:

- Emotional support
- Parental education
- Medical follow-up care
- Home visitations

(Purdy et al., 2015)

Parent’s Feedback

Many NICU parents report feeling underprepared for their baby’s discharge to home. Specific difficulties that parents reported were in obtaining feeding supplies, formula concerns, and a difficulty in accessing discharge summaries. However, families who reported feeling prepared were those that received explicit instruction on infant care for going home (Smith, Dukhovny, Zupancic, Gates, & Pursley, 2012).

An ongoing study at SUNY Downstate Health Sciences University is being conducted under the supervision of Dr. Desport to determine how a transition document can be used to support families and improve their transition process. The document presently covers 8 relevant areas for discharge to home:

- Feeding
- Bathing
- Safe Sleep
- Diapering
- Social Emotional and Physical Stimulation
- Developmental Milestones
- Family Support Services
- Medical Equipment

(Desport et al., 2020)

A document such as this is one of the ways communication can be enhanced at discharge to better prepare families. While several NICU professionals can conduct this communication at discharge, occupational therapists are uniquely qualified. This is because their practice domain is client-centered, focused on performance of daily activities that are meaningful. For a new parent, meaningful daily activities might include feeding, diapering, dressing, and bonding with their newborn. OTs are also skilled in the transition of care services.
NPASS 2019 - 2020
A Year in Review

Aug 2019
NPASS participated in Breastfeeding Awareness Month by creating and distributing a flyer and using it to advocate around campus.

Sept 2019
NPASS participated in the Student Activities Fair on campus to educate others about our organization. We finished the appointment of our E-board.

NPASS established a partnership with Kings County Hospital NICU for NPASS members to attend daily observation of medical rounds.

Nov 2019
NPASS Observation Experience
From November 2019 through March 2020, NPASS members attended observations of medical rounds in the NICU. Additionally, with the support of neonatal therapists, members observed therapy in the NICU.

March 2020
A NICU Cuddlers program was developed and training was planned. The in-person cuddling training was postponed due to school closure for COVID-19 and the program was put on hold.

April 2020
NPASS goes virtual and participates in biweekly webinars related to perinatal care to continue student education during the stay-at-home orders.

March of Dimes Virtual Walk
NPASS registered a fundraising team of students. NPASS also had a team on the Charity Miles app to walk from our own homes, and together we walked 420 miles and raised over $100.

May 2020-June 2020
NPASS group of authors created a NICU Cuddling Guide to improve NICU cuddling programs at hospitals. The guide will educate and train students of NPASS for the Kings County Hospital Cuddling Program. Authors plan to submit for publishing.

Jun 2020
NPASS hosted a Live Watch Party of the NICU Parent Network Webinar: Family Centered Developmental Care in the NICU, a collaboration project of the Preemie Parent Alliance and NPA.
References


