



Project Description

My doctoral capstone project allowed me to gain advanced knowledge related to the role of occupational therapy (OT) and other health professionals in the care of high-risk infants beginning in the neonatal intensive care unit (NICU) as well as the care of infants and families when transitioning to other rehabilitation services.

The knowledge gained through observation, interviews, and literature was used to develop a best practice rehabilitation program pathway starting in the NICU to support & enhance the care of infants.

Focus Area: Program Development and Clinical Practice

Population: Children & Youth, with a focus on children birth to three years old

Sites

Memorandum of Understanding

- ❖ **TowerHealth Reading Hospital:** observation of physical therapy (PT) in the NICU & follow-up clinic
- ❖ **St. Luke's University Health Network:** observation of outpatient pediatrics, informal interviews of healthcare professionals, and tours of three NICUs.
- ❖ **Neumann University:** office space to complete literature review and program development

Facility Access Letters

- ❖ **West Penn Hospital**
- ❖ **Good Shepherd Inpatient Rehabilitation Facility**
- ❖ **Step By Step Early Intervention**
- ❖ **Sunrise Early Intervention**
- ❖ **Hands on PT Early Intervention**

Observation completed at various settings that provide rehabilitation to high-risk infants

Literature Review

Research indicates

- ❖ Preterm infants are born when the brain is at a critical period of rapid growth
- ❖ Early therapy services in the NICU and continued therapy following discharge can optimize outcomes for infants.
- ❖ Therapy services are variable across different NICUs in the United States.
- ❖ Without therapy services, infants may not be given the opportunities to promote overall development.
- ❖ Follow-up programs are an integral part of a NICU graduates care.

Informal Needs Assessment

Conducted informal interviews

- ❖ 13 various healthcare professionals, who work in the NICU or with infants after discharge
- ❖ 6 parents, who have experienced the NICU

Completed a literature review

- ❖ 40 peer-reviewed articles
- ❖ 8 healthcare profession pediatric practice guidelines
- ❖ 6 books

Observation

- ❖ NICU (40 hours)
- ❖ Follow-up Clinic (16 hours)
- ❖ Inpatient Rehabilitation Facility (15 hours)
- ❖ Early Intervention (14 hours)
- ❖ Outpatient Pediatric (30 hours)

Mission & Vision Statements

Mission Statement: To gain advanced knowledge related to the role of occupational therapy in the care of the birth to three-year-old population and their families while in the NICU and as infants' transition to follow-up, early intervention, and outpatient services to support and enhance the care of infants.

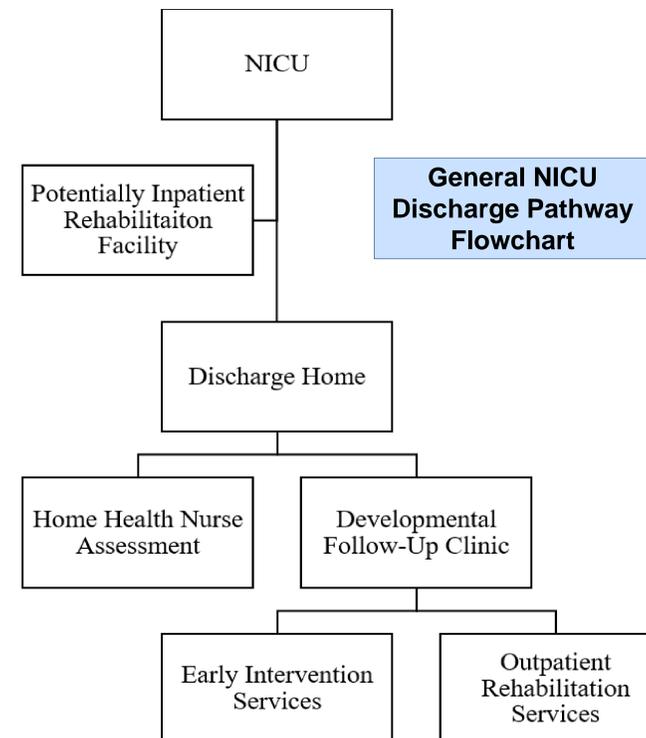
Project Vision Statement: To develop best practice program pathway guidelines for the NICU to support and enhance the care of high-risk infants in the NICU and as infants and families transition home.

Project Completion & Outcomes

- ❖ Gained advanced knowledge and understanding of OT and other healthcare professionals in the treatment of high-infants beginning in the NICU
- ❖ Created a best practice rehabilitation program pathway starting in the NICU

Deliverables

- ❖ Best Practice Rehabilitation Program Pathway: Beginning in the NICU
- ❖ Observation hours tracking document
- ❖ Certification of two continuing education courses
 - ❖ Supporting and Enhancing NICU Sensory Experience (SENSE)"
 - ❖ From Premie to Young Adult: 26 yr Retrospective Look at Parenting a NICU Graduate".



Future Implications for OT

The *Best Practice Rehabilitation Program Pathway: Beginning in the NICU* was created to ensure high-risk infants receive the developmentally supportive care needed.

Occupational therapists and other healthcare professionals can utilize the program to create a rehabilitation team to provide therapeutic interventions to infants and identify which infants need services sooner to decrease the risk of infants falling through the cracks and delays identified too late.

Despite the overlap between physical therapy, occupational therapy and speech and language pathology, the program pathway describes the vital need to create a supportive and collaborative team in the NICU to optimize care for high-risk infants and families.

The *Best Practice Rehabilitation Program Pathway: Beginning in the NICU* discusses the significant role of developmental follow-up programs for infants following discharge from the NICU.

KEY REFERENCES

- Craig, J. W., & Smith, C. R. (2020). Risk-adjusted/neuroprotective care services in the NICU: The elemental role of the neonatal therapist (OT, PT, SLP). *Journal of Perinatology*, 40, 549-559. <https://doi.org/10.1038/s41372-020-0597-1>
- Orton, J. L., Olsen, J. E., Ong, K., Lester, R., & Spittle, A. J. (2018). NICU graduates: The role of the allied health team in follow-up. *Pediatric Annals*, 47(4). e165-e171. <https://doi.org/10.3928/19382359-20180325-02>
- Royal College of Occupational Therapists. (2017). Occupational therapy in neonatal services and early intervention. <https://www.rcot.co.uk/file/1607/download?token=-DeuKXyS>

*Full reference list and image reference list available upon request

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