

Baby's Journey Home

Understanding the Role of Occupational Therapy in the Neonatal Intensive Care Unit

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BACKGROUND & PURPOSE

- Neonatal Intensive Care Unit (NICU) requires specialized expertise and hands on training to ensure competence and safety (AOTA, 2018; NIDCAP, 2015)
- Infants begin engaging in occupations immediately after birth (Macho, 2017; Pineda et al., 2018)
- Infants must have a caregiver to ensure needs are met (Craig et al., 2015; Gibbs et al., 2015)
- Parental expectations and assumptions are interrupted with premature birth (Aliabadi et al., 2014; Harris et al., 2018)
- Fetal development is disrupted upon premature birth (Macho, 2017)
- NICU environment is not like the intrauterine environment (AOTA, 2018; Macho, 2017)
- Chaotic environment of NICU may alter sensory and neural system development (Celik et al., 2018; Mitchell et al., 2015)
- NICU creates a disconnect between infant and caregiver (Gibbs et al., 2015)
- Purpose of capstone is to gain an understanding of OTs role and parent education in the NICU
- Educate parents and aid them in becoming active participants in infant care

METHODS

- Performed literature search to create learning objectives and activities
 - Eight objectives created to demonstrate mastery
 - Competence of techniques, advanced knowledge, and application of theoretical information
- Learning objectives
 - Explore role of OT in the NICU
 - Demonstrate understanding of NAS and determine how this affects typical development
 - Determine common diagnoses seen in the NICU and develop advanced knowledge
 - Demonstrate competence with infant development
 - Research common intervention techniques
 - Plan and implement intervention sessions
 - Swaddle bathing protocol
 - Provide parent education to enhance involvement

IMPLICATIONS FOR OCCUPATIONAL THERAPY

- Include addition of Universe of Developmental care model
 - Extension of synactive theory
 - Skin as interface between environment and neurologic development
 - Skin is shared surface that interacts with environment and caregivers
 - Bridges gap in original synactive theory to provide visualization of changes in underdeveloped central nervous system
- Occupational therapists provide activity analysis to determine strengths and deficits (AOTA, 2018; Royal College of Occupational Therapists, 2017)
- Provide client centered approach to meet needs of infant by utilizing caregiver to complete aspects of infant care (AOTA, 2018)
- Finding a variety of ways to involve parents in infant care is critical
- Parent education in the NICU creates improved carryover of skills upon discharge (Freeborn & Lee, 2018)
- Parent involvement is critical for best outcomes upon discharge from the NICU (Purdy et al., 2015; Umberger et al., 2018; Voos et al., 2015)
- Premature infants require an increased level of care than term infants (AOTA, 2018)
- Individuals working with this population must receive hands on training to achieve mastery necessary for high quality parent education (Als, 1982; Als, 1997)
- Finding methods to enhance parent involvement is important for the development of parenting skills (Gibbs et al., 2015; Umberger et al., 2018; Voos et al., 2015)
- Skills, tools, techniques, and knowledge gained during this experience cannot be taught in a classroom or read in a book
- Experience is extremely beneficial for creating competent NICU OT service providers

THEORETICAL FOUNDATION

Person Environment Occupation (PEO) Model

- Analyzes environmental barriers that may prevent individuals from engaging in occupations (Gibbs et al., 2009; Law et al., 1996)
- *Occupational therapists can bridge the gap between infant and caregiver* (AOTA, 2018)
- An occupational therapist in the NICU possesses the skills to create the best match between the person, the environment and the occupation (AOTA, 2018; Gibbs et al., 2009; Royal College of Occupational Therapists, 2017)
- The occupational therapist creates opportunities for parent engagement to facilitate occupational participation (AOTA, 2018; Craig et al., 2015)

Synactive Theory of Development

- Various subsystems of an organism exist in an intricate web of continuous dynamics (Als, 1982; Als, 1986; Als, 1997)
- A dynamic system is formed via the interaction between the infant, the caregiver, and the environment (Als, 1982)
- All subsystems exist in a hierarchy with a foundation of physiologic stability (Als, 1982; Als, 1997)
- Caregivers must assist infant in reaching stability at all levels of the hierarchy for appropriate development to occur (Als, 1982; Als, 1986)

RESULTS / CONCLUSIONS

- Mastery achieved through
 - Weeks of observation
 - Supervised participation in intervention and assessment
 - Active participation in discharge planning
 - Attending committee meetings
 - Interaction with parents and other health professionals
 - Supervision from site mentor with 12 years of NICU experience
- Honing education skills to cater to a variety of individuals from diverse backgrounds
- Information to increase success of future students to bridge transition from entry level skills to advanced clinical practice in the NICU
- Reached 85% independence with intervention and evaluation with infants of varying complexity diagnoses

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