Reducing Stress in the NICU: An Occupational Therapy Approach to Preterm Infant Massage

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The NICU and Stress

- Preterm infants receive complex medical care in the NICU.
- They are also subjected to extremely stressful situations such as loud noises, bright lights, and painful procedures.
- Preterm infants are separated from parents and deprived of nurturing touch.
- Accumulated stress may affect preterm infant development and accelerate disease processes.
- Parents of preterm infants report multiple factors contributing to their stress such as:
  - Physical environment (noise, bright lights, & odors)
  - Sight of their own sick infant
  - Loss of their expected parental role as being the most significant

Massage Benefits for Preterm Infants

- Fewer behavioral signs of stress such as decreased crying, sleeping more
- Increased weight gain through improved gastric motility
- Shorter hospital stay
- Improvement in neurobehavioral development
- Improved infant-parent attachment

Massage Benefits for Parents

- Increased positive parent-infant interactions
- Decreased depression and anxiety after just one session
- Improved confidence in their own parental skills
- Improved adaptation to their infant’s cues

Stress in the NICU negatively impacts neurobehavioral development and infant-parent attachment.
Description of the Program
The proposed intervention will include:
- One, one-hour hands-on training session for parents, using a doll, with an occupational therapist certified in infant massage.
- One, one-hour hands-on session where the OT will observe the parent providing massage therapy for reinforcement (more sessions may be added if the parent or OT requests).
- One follow-up visit to assess outcomes
- A YouTube digital video available for parents’ reference.
- Written educational material with a specific step-by-step protocol, infant signs of stress, and suggestions for adaptive parental responses geared toward a low literacy level.

Program Goals
Utilizing parent education
- To help preterm infants decrease stress levels in the NICU environment of care, improve neurobehavioral outcomes, increase weight gain, and facilitate infant-parent attachment.
- To help parents decrease feelings of depression and anxiety, improve responding to their infant’s cues and confidence in their parenting skills, and facilitate parent-infant attachment.

Preterm Infant Massage Protocol
- 15 minute sessions, 2 x a day: 5 minutes of tactile stimulation, 5 minutes of kinesthetic stimulation, 5 minutes of tactile stimulation.
- Moderate pressure stroking (sufficient to produce slight indentation in the skin) in prone during tactile phases.
- Kinesthetic phase consists of flexing and extending both arms, then both legs, while supine.

References