Providing a Multidisciplinary Feeding Approach in the NICU to **Optimize Developmental Outcomes and Decrease Length of Stay** Tara Huggard, MS, CCC-SLP, Keri Hellmann, MS, OTR/L, Brian J. Smith, LPT, MHA

Objectives

- **1** Describe how the premature infant, provided with comprehensive interventions from the NICU developmental team including Speech therapist, Occupational therapist, and Physical therapist, will facilitate a more objective approach to determine infant's readiness/acceptance to PO feeding trial attempts.
- Demonstrate that a multidisciplinary dedicated team approach to the *L* care of the premature infant will result in continued positive progression in developmental skills and enriched oral motor strategies ultimately decreasing the infant's NICU length of stay.

Introduction

The premature infant is faced with multiple barriers in the NICU environment. Their entry into the world is compromised by immaturity in multiple systems including respiratory, musculoskeletal, neurological, and sensory components that impact the infant's achievement of developmental milestones such as PO feeding skills. It was the purpose of this project to determine if a multidisciplinary team approach to oral stimulation, feeding, and developmental interventions would improve the overall quality of infant development and ultimately decrease the infant's length of stay in the NICU. The data was collected at Lehigh Valley Reilly Children's Hospital Cedar Crest which is a 40 bed Level IV NICU that provides comprehensive services for premature infants.

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Methods

The project included 20 premature infants

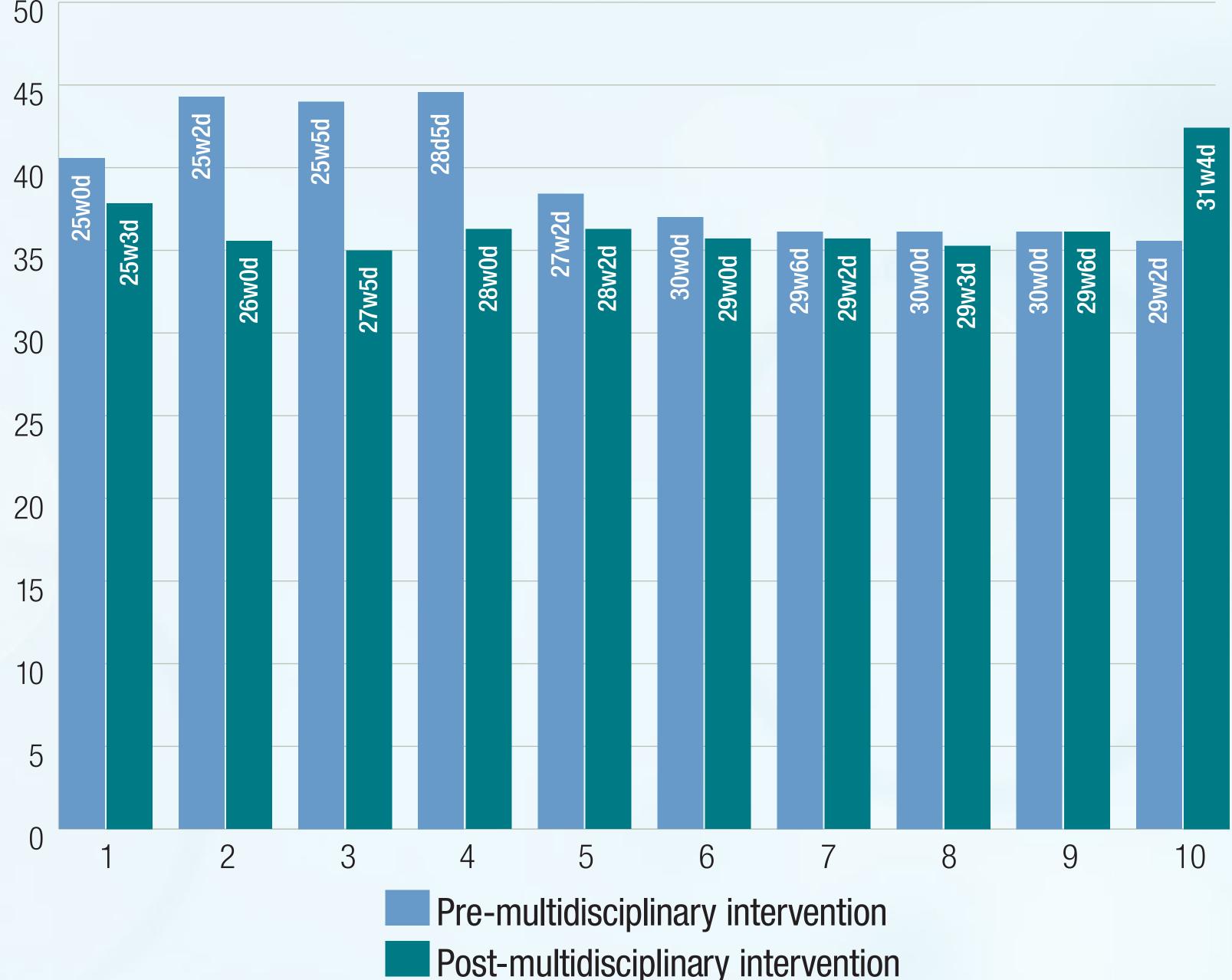
- Gestational age of less than 30 weeks at birth
- Varying medical complexities/ comorbidities (ie: oxygen requirements, neurological insults, cardiovascular involvement)
- 10 infants received varying services consisting of physical and/or speech therapy (or neither discipline)
- 10 infants participated in multidisciplinary team (PT, OT, and SLP) intervention

Strategies utilized by the Clinicians also assisted **OT, SLP, and PT team:**

- Oral motor facilitation External pacing Appropriate nipple assessment Therapeutic activity

- Antigravity challenges/
- Positioning

Comparative Analysis of Pre- and Post-Addition of OT Services and CPG Updates

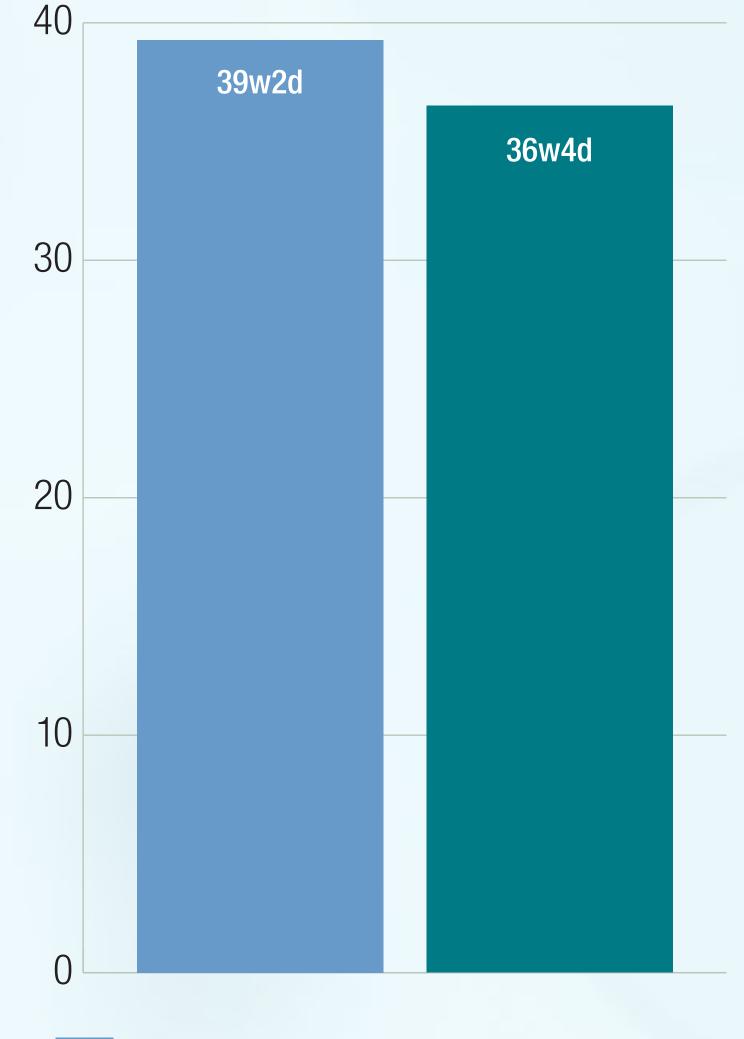


- performance endurance

NICU leadership with:

- Updating NICU's Infant Driven Feeding/Oral Motor Clinical Practice Guideline
- Creating PO readiness scorecards for the bedside
- Providing education to Nursing staff to streamline process of determining PO readiness

Average Age of Discharge Pre- and Post-Additon of OT Services and CPG Updates



Pre-multidisciplinary intervention Post-multidisciplinary intervention

Conclusions

Discussion

Limitations

- Next Steps NICU staff

- to Thrive

• The selected population of 20 premature infants, comparing both the Pre and Post Multidisciplinary Team Intervention, resulted in a 3-week decreased length of stay.

• Improved outcomes were observed in the areas of:

Performance endurance

Earlier engagement with PO feeding attempts

Earlier transition to PO feeds

Enhanced midline and flexion orientation

Small sample group included in the study

• Varying medical complexities/oxygen requirements/diagnoses

Inconsistency of family involvement

• Change(s) in infant's medical status during acute care stay

• Limited therapy staff trained to be able to provide services in the NICU

PIOMI (Premature Infant Oral Motor Intervention) In-Service held for

PIOMI is now a NICU standard of care

Performed and documented by nursing

Therapy staff performs as needed

PIOMI is included in Nursing orientation

• Further development of cross communication amongst therapy disciplines and medical/nursing staff to implement consistent strategies to improve positive outcomes with PO feeds and performance endurance associated with oral motor facilitation Ongoing consideration of earlier introduction of commercial bottle system versus hospital grade nipple

Potential Future Studies

Readmission of NICU grads to the acute care setting for Failure

 Comparing Length of Stay with addition of nursing staff to multidisciplinary team approach (post addition of PIOMI to unit)

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