

Abstract Title:

Volunteer Cuddlers as Developmental Care Partners in the NICU

Author Information:

James Fritzell, Jr, MD
Clinical Director, Small Baby Program
Miller Children's and Women's Hospital Long Beach

Co-Authors:

Mary Wardell PT, DPT, PCS; Katherine Daeley RN; Ching Tay RN, MS, CNS RNC-NIC; Glenn Falero RCP; Ann Camelo and Susan Patalano volunteer cuddlers

Abstract Description:

Background Skin-to-skin (STS) holding is the gold standard in the NICU, with improved parent-child bonding, physiological stability, stress tolerance, behavioral organization, and movement quality. Daily holding as part of pre-feeding activities can help to progress state and cardiorespiratory endurance while promoting non-nutritive sucking (NNS). Some parents have limited availability for STS holding, therefore other strategies that can provide some degree of benefit similar to STS are needed. There is minimal research examining the effects of STS vs swaddled holding or the role of NICU cuddlers. Cuddler program orientation does not include specific training related to neuroprotection for VLBW infants or techniques to safely transfer and hold infants on bubble-CPAP, leading to some infants who do not receive the benefits of being held.

Objective To describe the development of a program for swaddled holding by volunteer cuddlers, specifically for very-low-birth-weight (VLBW) infants on bubble CPAP (b-CPAP) support.

Program Education was provided to a select group of cuddlers on: 1) neurodevelopmental considerations for preterm infants, including sensory systems development and age appropriate stimulation, 2) B-CPAP, and 3) technique for transferring an infant on b-CPAP and positioning for swaddled holding. Cuddler competencies were assessed by the PT or RCP at bedside. A staff survey was implemented to determine receptiveness to utilizing volunteer cuddlers in the Small Baby Unit. Barriers were identified and addressed as they arose (staff resistance, inconsistent identification of eligible infants, identification of trained cuddlers, etc).

Results Over an 18 month period, 28 infants were included in the program, with average gestational age (GA) at birth was 25 weeks. Average post menstrual age (PMA) at initiation of

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swaddled holding was 31 weeks. Over the 18 month period, the average PMA at initiation of cue based feeding decreased from 36 weeks to 35 weeks; the average PMA at time of discharge decreased from 39 weeks to 36 weeks. The average Test of Infant Motor Performance (TIMP) Z- score at discharge was .2 standard deviations above the mean for adjusted age, indicating motor skills within normal limits for the adjusted age. There were no adverse responses observed or reported. Future plans are to include intubated infants in the program.

Implications for Family Support This program is an innovative approach to providing neurodevelopmental supportive care to VLBW infants whose families are not available on a consistent basis. It could lead to improved quality outcomes with minimal resource utilization.