C2.3: Non-nutritive Sucking for Preterm Infants in Egypt

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Abstract:
Introduction: Infants born prematurely are exposed to many environmental and physiological stressors and must learn to adapt and respond to their surroundings. Non-nutritive sucking (NNS) may assist preterm infants to manage stressors encountered in the extrauterine world, modulate their behavior states, and interact with the environment. NNS facilitates development of suckling
behaviors and even improves enteral feeding digestion, ultimately easing the behavioral
transitions to oral feedings. However, no previous study explored the effect of this intervention
on preterm infants in Egypt. The purpose was to evaluate Egyptian preterm infants’ behavioral
and physiological responses to non-nutritive sucking.

Method(s): Forty seven preterm infants (mean gestational age 30.04±1.43 weeks) entered the
study when they begin nasogastric feeding and randomized to either NNS or no NNS. NNS for
infants 5 minutes before, during and after nasogastric feeding. Behavioral responses were
videotaped during 5 nasogastric feedings every other day over the 10 days. Physiological
responses were recorded from the monitor 4 times/day for 10 days. The control group never
received NNS according to standard NICU care. Repeated measure ANOVAs was used to
analyze the data.

Results: During feedings, infants receiving NNS showed significantly more alertness and
drowsiness but less active and quiet sleep and sleep wake transition than control infants.
Intervention infants showed significant increases in organized movement and flexed posture but
fewer disorganized and mixed movements than control infants. Non- nutritive sucking infants
showed higher oxygenation during and after feeding but no changes in heart rate, they gained
more weight and were discharged earlier than control group.

Discussion & Conclusions: Non-nutritive sucking lead to increased waking, especially
alertness, and oxygenation, which are conducive of more effective feeding. As a result, the NNS
group had an earlier transition to nipple feeding and earlier discharge than the control group.

Abstract History:
This abstract has not been presented or accepted for presentation in whole or in part at the SNRS
or other scientific meeting.

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