

Critical Review: In preterm infants, which form of oral stimulation best establishes the non-nutritive suck in order to accelerate the transition time to oral feeding: the NTrainer patterned orocutaneous therapy or oral stimulation delivered by a pacifier?

Trevisonn, A. L.
M.Cl.Sc. (S-LP) Candidate

NNS in order to accelerate the transition time to oral feeding. Recommendations will be discussed in order

was given to all infants while the transition from nasogastric (NG) tubes to oral feeds using standard feeding practice.

The NNS compression pressure waveforms were digitized for analysis. The NNS suck variables were measured at two weekly sessions before the stimulation phase (PRE) and again two weekly sessions following the introduction of the patterned orocutaneous NTrainer stimulation (POST).

A repeated measures multivariate analysis of covariance was completed for seven dependent variables. The Bonferroni adjustment for multiple comparisons adjusted for differences in the covariates. There was no significant group difference in the PRE scores except for NNS bursts per minute and NNS Cycles% Total measured at their second session.

Effects of the treatment were measured by the number of tube feedings, daily weight gain, days of hospitalization and discharge weight.

An analysis of variance was done with weight on date of entry as the covariate. Results found the treated infants to attain first bottle feeding on average 3.4 days earlier than the control group ($P < .05$). Researchers suggested that providing NNS opportunities before and after feeding may facilitate the clinical course of premature infants, however responsible mechanisms could not be determined.

Methodological limitations are apparent within the study by Measel and Anderson (1979). The two nurseries involved in this study followed different bottle feeding. As well, nurses, physicians and volunteers were not blinded to the group assignments, therefore affecting the methodologic quality of these findings. Duration of the treatment ranged from five to forty days, where only twenty of the infants were controlled for maturational effects. Inclusion criteria were

(time and duration), small sample sizes, and potential for participant bias on feeding readiness, which may have all contributed to diminished validity and reliability of results. The time and length of treatment, and variation in the population of preterm infants who participated in these studies made it somewhat challenging to compare their results. Additional confounds such as limited power to compare effect sizes and inclusion bias were also noted.

The integration of all results still propose

