

crisprd 1.0



Abstract

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PI Title: PROFESSOR

Project Title: NURSING INTERVENTIONS USED IN FEEDING PRETERM INFANTS

Abstract: *Learning to suck efficiently is the major work of the preterm infant. Infants who fail to suck efficiently impair their cardiopulmonary functions, impede their behavioral state changes, and fail to gain weight appropriately. Despite the seriousness of these outcomes, there have been only a few published clinical trials of developmental care programs. These trials evaluated infant outcomes related to developmental care in terms of total program effect, making it impossible to evaluate the effects of specific developmental interventions. Therefore, the specific aims of this project are to: (a) determine the degree of physical growth (weight gain, increases in length and occipitofrontal head circumference) and behavioral state change (sleep/wake) immediately following a one week intervention program and a 7-day follow-up, and (b) describe the process by which physical growth and behavioral state change occur in regard to selected indicators of sucking efficiency (heart rate, respiratory rate, oxygen saturation levels, and sucking pattern characteristics). A 4 group, repeated observation, control group design of inefficient feeders will be used. Each group will consist of 55 infants for a total of 220 subjects. Group I infants will receive oral support (cheek and jaw support), Group II infants will receive nonnutritive sucking (pacifier), Group III will receive a combination of oral support and nonnutritive sucking, and Group IV will serve as the control group. RM-ANCOVA and ANOVA will be the statistical methods used to address the four hypotheses. It is essential that we understand the outcomes of specific interventions with bottle feeding over time, since (a) many of the complications (e.g., apnea, bradycardia, oxygen desaturation, untoward changes in behavioral state changes, and changes in sucking pattern characteristics) experienced by preterm infants occur during and immediately after*

the feeding session and (b) weight gain and the absence of apnea or bradycardia are major criteria used by neonatologists and neonatal nurse practitioners to discharge infants from the hospital. If proven to be effective strategies, these techniques could potentially shorten the length of hospital stay for the preterm infant resulting in cost-saving benefits for the hospital.

Thesaurus Terms:

child physical development, developmental nutrition, nursing intervention, oral behavior, pediatric nursing, premature infant human behavioral /social science research tag, clinical research, human subject, nutrition related tag

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