

THE FEEDING EFFICACY AND STATE BEHAVIOR OF PRETERM INFANTS

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Nurses need to understand the outcomes of specific interventions used with bottle-feeding since many of the complications experienced by preterm infants occur during and immediately after the feeding session. Preterm infants, unlike term infants, are less able to modulate their state behavior. This inability may interfere with their capacity to consume adequate amounts of oral nutrition. Additionally, the frequent state changes may relate to greater energy expenditure by the preterm infants. Consequently, nurses may need to provide interventions that would enhance the infants' behavioral state and increase their oral intake volume and feeding duration.

Purpose: The purpose of this research is to estimate the feeding efficacy (amount of formula taken and the length of feeding) and the variability in the state behavior (sleep/wake) of preterm infants following a 1-week intervention program and a 7-day follow-up.

Method: A quasi-experimental design will be used to assign infants 32-to-34 weeks postconceptional age randomly to two groups (oral support and no support). The oral support group will receive cheek and mandible support throughout the feeding. Each group will consist of 55 infants for a total of 110 subjects. Data will be collected on the length of the actual feeding and the amount of formula ingested. The Anderson Behavioral State Scale will be used to collect data on the variability in the infants' behavioral state. Infants will be fed using one of two strategies for 7 consecutive days. Feeding advancements will be made in accordance with the physician's or nurse practitioner's orders.

Analysis: Descriptive statistics will be used to characterize the sample. Infant response data will be analyzed using repeated measures ANCOVA. The covariates are pre-feeding data and the dependent variables are formula intake, weight gain and number of state changes in a fixed feeding interval.

If shown to be effective, this strategy could be implemented as a standard nursery procedure for feeding preterm infants.