

BEHAVIORAL RESPONSE TO AUDITORY STIMULI OF THE INFANT

Harriet D. Miller, MSN, ARNP

Lorraine Keller

Elise Hohreiter

Charlene Krueger, PhD, ARNP

University of Florida, College of Nursing

PO Box 100197, HPNP Complex

Gainesville, FL 32610-0197

Purpose: The purpose of this study is to examine the behavioral response to auditory stimuli of premature infants at 32 weeks and again at 34 weeks. The specific aims of this proposal are: 1) To describe differences in the behavioral response to a maternal as compared to a non-maternal recording of the rhyme. 2) To observe behavioral responses following auditory recording of nursery rhyme in maternal and non-maternal voice.

Method: An observational, secondary analysis will be used to study the infant's behavioral response to a recording of a nursery rhyme recited by the mother and one recited by a non-mother voice. The sample will be one of convenience selected from a neonatal intensive care unit population located in North central Florida. Infants will be selected if they are 28 weeks of age and hospitalized. The nursery rhymes will be played to each infant weekly from ages 28 weeks to 34 weeks. Infants will be videotaped at week 32 and 34 before, during, and after the nursery rhyme recording. These videos will be cut into 5-second clips and have audio removed in preparation for the observation of behavioral responses. The 5-second clips will then be observed randomly to ensure that no bias will affect the observations.

Findings: This study is a proposed study. No findings are available at present.

Discussion: Behavioral responses of premature newborns over 28-34 weeks post-conception ages are relatively unknown. However, learning capacities with repeated rhyme recitation have been detected in fetuses at 28-34 weeks through heart rate variability analyses. This proposal hopes to study behavioral responses to these repeated rhyme recitations in NICU premature newborns at 28-34 weeks of age. The long-term goal is to develop ways to re-introduce the maternal voice in the premature infant who has lost this primary source of auditory stimulation secondary to an unusually early birth.