

Title:

The Effects of Recorded Lullaby Music on the Physiological and Behavioral States in Infants in the NICU:
A Pilot Study

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Session Title:

Rising Stars of Nursing Invited Posters - Group 2

Slot (superslotted):

RSG STR 2: Friday, September 26, 2014: 10:00 AM-10:30 AM

Slot (superslotted):

RSG STR 2: Friday, September 26, 2014: 11:45 AM-1:00 PM

Slot (superslotted):

RSG STR 2: Friday, September 26, 2014: 3:00 PM-3:30 PM

Keywords:

Behavioral States, Music Therapy and NICU

References:

Chen, S.J., Chou, L.L., Pai, L., Wang, R.H. (2003). Effects of music therapy on oxygen saturation in premature infants receiving endotracheal suctioning. *Journal of Nursing Research*, 11(3), 209-215.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE	TIME ALLOTTED	FACULTY/SPEAKER	TEACHING/LEARNING METHOD	EVALUATION/FEEDBACK
Example Critique selected definition of the term, "curriculum"	Example Definitions of "curriculum" Course of study Arrangements of instructional materials The subject matter	Example 20 minutes	Example Name, Credentials	Example Lecture PowerPoint presentation Participant feedback	Example Group discussion: What does cultural training mean to you?

	that is taught Cultural "training"				
	Planned engagement of learners				
The learner will be able to appreciate the effects music therapy has on maintaining or returning high-risk infants to a state that promotes physiological homeostasis.	Learn more about the effects on heart rates, respiratory rates, and oxygen saturations Applications to other areas outside of NICU	10 minutes	Hayley Jambor, RN, BSN, MSN	Lecture and poster	How can music therapy affect the patients in your facility or practice area?
The learner will be able to understand that music therapy promotes stabilized behavioral states that support growth.	Learn more about which behavioral states were optimized during the music therapy intervention. Further understanding of	10 minutes	Hayley Jambor, RN, BSN, MSN	Lecture and poster	Could the use of music therapy decrease length of stay and increase weight gain?

	expending energy and calories with and without music therapy.				
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Abstract Text:

The purpose of this study was to explore the effects of selected recorded lullaby music on the vital signs (heart rates, respiratory rates, oxygen saturation levels) and behavioral states (quiet sleep, active sleep, drowsy, quiet alert, active alert, and crying) in infants greater than or equal to 32 weeks gestation in the Neonatal Intensive Care Unit (NICU). There were four research questions: 1) Is there a difference in the mean heart rates in premature infants receiving music therapy compared with premature infants not receiving music therapy, 2) Is there a difference in the mean oxygen saturation rates in premature infants receiving music therapy compared with premature infants not receiving music therapy, 3) Is there a difference in the mean respiratory rates in premature infants receiving music therapy compared with premature infants not receiving music therapy, 4) Is there a difference in behavioral states in premature infants receiving music therapy compared with premature infants not receiving music therapy.

Thirty infants participated in the quasi-experimental quantitative study. A crossover research design was used in which infants served as their experimental and control groups, respectively. The experimental group received music therapy (the independent variable) on days one, three, and five. On days on two, four, and six, infants served as their own control group. Some infants were discharged prior to the sixth day. The crossover design controlled for variability among the sample. Music was played on a CD player in the infant's room and was set at 60 decibels as recommended. Heart rates, respiratory rates, oxygen saturations, and behavioral states were recorded ten minutes prior to the first evening feeding, five minutes into the feeding, and ten minutes after the feeding was complete.

Statistically significant findings (at the $p < 0.05$) included heart rates ($p = 0.000$), oxygen saturations ($p = 0.015$), and behavioral states ($p = 0.015$). The application of music therapy was found to be significantly associated with decrease in crying (26.7%) as well as a significant increase in quiet sleep (70.6%). In addition, the application of music therapy enhanced feeding because infants spent more time significantly in the quiet alert (57.8%) and active alert (51.4%) states. The application of music therapy was not statistically significant for the respiratory rates. From the results found, music therapy is associated with achieving optimal behavioral states that promote neurological and behavioral development in infants in the NICU.