**Title:** Does Music Soothe the Soul

### **Candy Bruton**

NICU, Texas Health Resources Harris Methodist Hurst-Euless-Bedford, Bedford, TX, USA Deborah Behan Nursing Operations, Texas Health Resources Hurst-Euless-Bedford, Bedford, TX, USA

Session Title: Frontline Clinical Leadership Posters Slot (superslotted): FL CL PST: Friday, September 26, 2014: 10:00 AM-10:30 AM Slot (superslotted): FL CL PST: Friday, September 26, 2014: 11:45 AM-1:00 PM Slot (superslotted): FL CL PST: Friday, September 26, 2014: 3:00 PM-3:30 PM

#### Keywords:

decibels, music and neonates

#### **References:**

Bibliography: Ronit Lubetzy, FrancisB. Mimouni, Shaul Dollberg, Ram Reifen, Gina Asbel, Dror Mandel (2009) Effects of Music By Mozart on Energy Expenditure in Growing Preterm Infants. Pediatrics, DOL:10.1542/peds.2009-0990 Diana O. Neal, MS, RN, Linda L. Lindeke, PHD, RN (2008) Music as a Nursing intervention for the Preterm Infant in the NICU, Neonatal Network, Vol 17 No. 5 Fred J. Schwartz, Music Therapy, (2004) Medical Music Therapy for the Premature Baby-Research review, chapter 6 Standley J. M. PHD,MT-BC (2002) A Meta Analysis of the Efficacy of Music Therapy for the Premature Infant, Journal of Pediatric Nursing Vol. 17 No.2 Douglas R. Keith, MT-BO PhD, K. Russell, RN, PhD. Barbara G. Weaver, RN (2009) The Effects of Music Listening on the Inconsolable Crying Infants, Journal of Music Therapy, Fall:26(3):191-203 Ashley L. Hodges, PhD, WHNP-BC, Lynda Law Wilson, RN, PhD, FAAN (2010) Effects of Music Therapy on Preterm Infants in the Neonatal Intensive Care Unit, Alternative Therapies SEP/OCT 2010 Vol 16, No. 5. Diler-Aydin, Suzan Yildiz, Effects of Classical Music on Stress Among Preterm Infant in a Neonatal Intensive Care Unit (2012) Jounral of Society for development in new net environment in B&H, HealthMED, Vol 6, No 9, 2012

## Learning Activity:

LEARNI NG OBJECT IVES	EXPANDED CONTENT OUTLINE	TIME ALLOT TED	FACULTY/SP EAKER	TEACHING/LE ARNING METHOD	EVALUATION/FE EDBACK
Example	Example	Exampl	Example	Example	Example
		e			
Critique	Definitions of		Name,	Lecture	Group discussion:
selected	"curriculum"	20	Credentials	PowerPoint	What does cultural
definition		minutes		presentation	training mean to
of the	Course of			Participant	you?
term,	study			feedback	-
"curriculu	Arrangements				
m"	of				

	instructional materials The subject matter that is taught Cultural "training" Planned engagement of learners				
1. Learners will describe from the synthesis the evidence of how music helps soothe irriable neonates	Backgrounds ynthesis Types of music Tempo of music Decibels for neonates	30 minutes	Candy Bruton, BSN, RNC, NIC	Poster Presntation	Group discussion: sunthesis of the listerature
2. Learners will discuss results of the research study	Purpose f the study Methods Survey IRB iPods Findings T- Test Conclusions	30 minutes	Candy Bruton, BSN, RNC, NIC	Poster Presentataion	Group discussion; results and conclusions

# Abstract Text:

**Purpose:** Some common types of music neonates are reported to prefer includes female voices, lullabies at a rate of 60-80 beats per minute, Mozart, and piano music (Hodges & Wilson, 2010; Keith, 2009, Schwartz, 2004). Decibel levels for neonates should range from 55-80db for a neonate (Stanley, 2002). No study was found that focused on neonates with any type of diagnoses at 28 weeks in regards to their physiological response to music when irritable. The purpose of this research study was to determine if playing music for fussy/irritiable neonates would decrease their heart rate and respiratory rate, and increase their oxygen saturations while in NICU.

**Methods:** Education was provided to NICU nurses regarding the definition of an irritable infant, and the purpose of the study. All neonates in NICU, 28 weeks and older were included in the study. A folder was placed at the bassinet/crib, which contained the protocol for the study and the data collection form for the nurses to complete. Once an infant was determine to be fussy/irritable (crying for 5 minutes or more after feeding and diaper change) their heart rate, respiratory rate, and Oxygen saturation (SPO2) was

recorded. Once music was applied and 5 more minutes had elapsed the after heart rate, respiratory rate, and Oxygen saturation was again recorded. Earbuds were placed in the bassinet/crib/isolette by the neonate ears, and were attached to an iPOD that played Mozart and lullabies at 60-80 beats per minute. Decibels for the iPOD were determined by using a decibel meter and marking the iPOD so that 55 decibels were set on the iPOD and not exceeded. Data from the collection forms were entered into SPSS (Statistical Package for the Social Sciences) for analysis, and a paired T-Test was done.

**Results:** A paired T-Test was done for analysis. Statistical significance was found with regards to the before music heart rate, respiratory rate, and Oxygen sturations when compared to the after music heart rate, respiratory rate, and Oxygen saturations.

**Conclusion:** Music used in NICU can increase oxygen saturations and decrease heart rate and respiratory rate in the fussy/irritable neonate. Neonates can become fussy at shift change, when parents visit, and when labs are drawn or treatments are done. Music can be used at these times to possibly reduce stress, which increases heart rate and respiratory rate, and decreases Oxygen saturations.