

Pittsburg State University

## Pittsburg State University Digital Commons

---

Posters

2019 Research Colloquium

---

4-1-2019

### Music Therapy in Preterm Infants in the NICU

Olivia Murdock

*Pittsburg State University*

Barbara McClaskey

*Pittsburg State University*

Follow this and additional works at: [https://digitalcommons.pittstate.edu/posters\\_2019](https://digitalcommons.pittstate.edu/posters_2019)



Part of the [Maternal, Child Health and Neonatal Nursing Commons](#)

---

#### Recommended Citation

Murdock, Olivia and McClaskey, Barbara, "Music Therapy in Preterm Infants in the NICU" (2019). *Posters*. 46.

[https://digitalcommons.pittstate.edu/posters\\_2019/46](https://digitalcommons.pittstate.edu/posters_2019/46)

This Article is brought to you for free and open access by the 2019 Research Colloquium at Pittsburg State University Digital Commons. It has been accepted for inclusion in Posters by an authorized administrator of Pittsburg State University Digital Commons. For more information, please contact [digitalcommons@pittstate.edu](mailto:digitalcommons@pittstate.edu).



# Music Therapy in Preterm Infants in the NICU

Olivia Murdock, Senior BSN Student

Pittsburg State University, Irene Ransom Bradley School of Nursing

Faculty – Barb McClaskey, PhD

## Purpose

The purpose of this literature review was to examine whether adding music therapy (MT) during care of preterm infants in the NICU will have a positive effect on physiological outcomes of the infants and their families during their hospital stay.

## Introduction

- When a family has to admit their neonate into a NICU, it is considered to be one of the most stressful times of the parents' and infant's lives.
- The infant admitted is considered to be in a state of "failure to thrive."
- During this time, parents and infants are at risk for attachment issues. Forming a solid attachment is crucial in the first few weeks of the newborn's life.
  - Parents, especially overwhelmed mothers, are less in tune to the child's communicative cues
  - Disruptive attachment may have psychological repercussions in the infant for future healthy relationships
  - Stress and anxiety tend to break family relationships and create a rift in the support system needed
- Sense of hearing was developed in the mother's womb.
  - The infant goes from the soothing sound of mom's voice to the extreme overstimulation and sensory deprivation
  - It is overwhelming and may cause the infant to digress instead of improve
- One way to decrease anxiety of preterm infants and their parents is to add music therapy during the daily NICU care.
- Many studies have shown that infants who have the addition of music in their daily care have significantly better outcomes than infants who do not receive music therapy.

## PICOT Statement

- **Population:** Preterm infants & their parents in the NICU
- **Intervention:** Use of music therapy during care
- **Comparison:** No use of music therapy during care
- **Outcome:** Faster discharges & positive changes in VS in neonates, decrease anxiety/stress in parents
- **Timeline:** 2-3 days a week during hospital stay

## Interventions/Method

- Mark Ettenberger conducted a study in Colombia where MT was introduced to infants during the process of kangaroo care with the mother.
- Leila Taheri lead a similar study where infants heard MT through a headphone from a music player device during daily care.
- Both studies focused on the outcomes of how infants reacted before, during, and after the therapy.
- In all the research studies, there was a control group and an intervention group.
  - Control group (CG): received standard NICU care
  - Intervention group (IG): receive standard NICU care with the addition of music therapy
- 2-3 days a week, the intervention samples will have a music therapy session
  - Music added to the setting during kangaroo care/headphones on the infant's head
  - Parents choose genre of music or song
  - Despite song choice, the music had a slow tempo and soft beat
    - Most frequently chosen: nursery rhymes, lullabies, religious songs, country, pop
- During the MT, infants will be connected to pulse ox, HR, and respirations will be counted
- It is recommended that parents are present during all MT sessions so they have the opportunity to benefit from the therapy as well

## Results/Conclusion

- With the addition of music therapy into daily NICU care, there were some significant outcomes.
- In most cases, infant heart rate was reduced and oxygen saturation was increased, as well as more stable breathing patterns.
- Infants expended less calories which resulted in increased weight.
- Stay of hospitalization was shorter in the intervention group vs the control group.
  - Rehospitalization rates were also lower in the IG compared to the CG
- Parents reported feeling less stress and more relaxed
  - IG parents also reported better bonding patterns than CG parents



## References

- Ettenberger, M., Cardenas, C. R., Parker, M., & Odell-Miller, H. (2016). Family-Centered Music Therapy with Preterm Infants and Their Parents in the Neonatal Intensive Care Unit (NICU) in Colombia – A Mixed-Methods Study. Retrieved October 3, 2018, from [https://arro.anglia.ac.uk/700835/1/Ettenberger\\_2016.pdf](https://arro.anglia.ac.uk/700835/1/Ettenberger_2016.pdf).
- Haslbeck, F., & Costes, T. (2011). Advanced Training in Music Therapy with Premature Infants: Impressions from the United States and a Starting Point for Europe. *British Journal of Music Therapy*, 25(2), 19-31. doi:10.1177/135945751102500203
- Loewy, J., Dassler, K. S., Telsey, A., & Homel, P. (2013, May 01). The Effects of Music Therapy on Vital Signs, Feeding, and Sleep in Premature Infants. Retrieved October 23, 2018, from <http://pediatrics.aappublications.org/content/131/5/902>
- Music therapy in the NICU: is there evidence to support integration for procedural support?. (2013). *Advances in neonatal care : official journal of the National Association of Neonatal Nurses*, 13(5), 349-52.
- Oldfield, A. (2017). The first 'themed' British journal of music therapy: An introduction to music therapy with families. *British Journal of Music Therapy*, 31(1), 5-11. doi:10.1177/1359457517693818
- Taheri, L., Jahromi, M. K., Abbasi, M., & Hojat, M. (2017). Effect of Recorded Male Lullaby on Physiologic Response of Neonates in NICU. *Applied Nursing Research*, 33, 127-130. doi:10.1016/j.apnr.2016.11.003