Tiniest Warriors: Managing Pain Through Music

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PICOT Question

P:In NICU patients, both female and male (population), undergoing procedures
I: how does the non-pharmacological pain intervention of using music therapy
C: compared to pharmacological pain intervention
O: to relief pain
T: within 3-7 hours

Background

Neonatal Intensive Care Units (NICUs) play a pivotal role in providing specialized care to critically ill newborns. Despite the life-saving interventions they are offered, many infants in the NICU often experience painful procedures and medical interventions. It is well-established that neonates have the capacity to perceive pain, and the consequences of unmanaged pain in this vulnerable population can be profound. Pain is often cared for through pharmacological interventions without looking for deep cause. However, implementing non-pharmacological interventions such a music therapy can differentiate procedure pain from complication pain.

Literature

DATABASES:
- Google scholar
- Cochrane Library
- PubMed
- CINAHL
- American Society for Pain Management Nursing
- American Association of Nurse Anesthesiology

KEY TERMS:
- “Non-pharmacological pain management”
- “Pediatric pain management”
- “NICU pain response”
- “NICU pain management”
- “Pain management”
- “Music therapy”

ARTICLE SELECTION CRITERIA:
- Published between 2018 and 2023
- Published in English
- Published in a scholarly journal
- Aligns with research question: In NICU patients, both female and male, undergoing procedures, how does non-pharmacological pain interventions compared to pharmacological pain interventions affect pain relief within 3-7 days?
- Includes the population (NICU babies, male or female; Pediatric patients, male or female)
- Other: Nursing peer-reviewed articles, includes intervention related to (non-pharmacological pain management)

Synthesis of Findings

- Music therapy contributed to improved behavioral pain responses.[1]
- Preterm infants receiving music therapy had shorter durations of various forms of therapy and hospitalization.[3]
- Premature Infant Pain Profile (PIPP) score was significantly lower in Kangaroo mother care with music therapy group as compared to those without music therapy.[6]
- Music therapy decreased pain levels and stabilize HR, SPO2, and RR in the pediatric population.[6]
- Vocal music significantly reduces pain in neonates during procedures.[1]
- The use of music therapy contributed to decreased pain after surgery.[5]

Decision to Change

Based on the evidence gathered from our research, we encourage to use the non-pharmacological intervention of music therapy to decrease post procedure pain in the NICU. Our research evidence showed that using music therapy resulted in a decrease of neonatal pain. Moreover, implementing more use of non-pharmacological interventions, such as music therapy, in the NICU can further prevent masking more serious complications, and avoid the use of strong pain medications on the neonate population.

Evaluation

The pain level of neonates will be measured using the Premature Infant Pain Profile (PIPP) after nurses are educated on the use of music therapy for pain control and possibly on the PIPP scoring system as well. The PIPP tool is well-known and trusted throughout the healthcare field and relies on multiple observable cues such as facial expression, oxygenation, and state of arousal, since our patients are not able to self-report their pain.

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