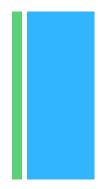


Evidence-Based Recommendations for Decreasing Procedural Related Pain and Anxiety in Pediatric Patients

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- To develop best practice recommendations for decreasing pain and anxiety associated with medical procedures in pediatric patients.
- To create an educational pamphlet for families with information on using music with their child during painful medical procedures.

### Significance of the Problem

- Increased levels of pain and anxiety can be detrimental to the well-being of a child, particularly in children requiring frequent blood draws or other painful treatments due to chronic illness.
- Certain treatments and procedures can prompt a negative response, which may include crying, screaming, verbal opposition, and physical avoidance.
- Repeated painful procedures with inadequate treatment may result in detrimental long-term effects of pain responses in the future.
- Children as young as 3 years old have accurate memories of painful events that they have experienced.
- The neuronal construction of the brain may be permanently changed by repeated noxious stimuli.

### + Literature Review

PubMed, EBSCO, and CINAHL databases

- Keyword "music therapy" with subheadings "pediatric," "pain," and "anxiety"
- 20 articles utilized in total
- Music therapy can be effective in decreasing levels of pain and anxiety in pediatric patients undergoing painful procedures and it is recommended for use in conjunction with other therapies.
- Pediatric patients and their families describe music therapy as a positive experience and one that they would be interested in using again in the future.

## Best Practice Recommendations

- An educational pamphlet designed for parents is an easilyimplemented, cost-effective, and realistic way for music to be used therapeutically in the pediatric population.
- The educational pamphlet includes information regarding:
  - The possible short-term and long-term effects of untreated pain in children
  - Possible benefits of music therapy
  - How music therapy can be implemented in the child's care
  - How to contact a local music therapist

The goal of the pamphlet is to provide parents with current, evidence-based information on music therapy.

### + Educational Pamphlet

#### Simply Put

- Clear, easy to understand message
- Short, 1-2 syllable words when possible
- Encouraging tone
- Font size between 12 and 14
- Serif fonts are best
- Visuals should only be used to help explain the information
- Logical, easily understood layout
- Cover should be attractive

# Strengths and Limitations

#### Strengths

- Based on a thorough literature review of evidence-based research.
- Intervention is simple to implement, non-invasive, and allows parents to participate in care.
- Minimal nursing involvement allows the nurse to focus on the procedure and the patient.

#### Weaknesses

- Literature does not include studies specifically involving parentimplemented music therapy.
- Many studies used qualitative rather than quantitative measures.

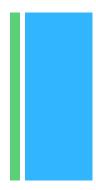
# + Directions for Future Research

Further investigation into the long-term effects of inadequately treated pain in pediatric patients

Use of more recent research on the topic of music therapy in pediatric patients

Research on the effectiveness of music therapy when implemented by a parent, as opposed to a music therapist





- Music therapy can be effective in decreasing levels of pain and anxiety in pediatric patients undergoing painful procedures and should be used in conjunction with other therapies.
- An educational pamphlet is an easily-implemented and costeffective method of teaching families about using this intervention during painful procedures.