

Non-pharmacological pain management for children in palliative care:

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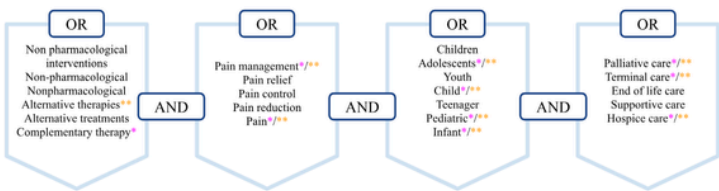


INTRODUCTION:

The WHO estimates that around 21 million children are in need of palliative care each year¹. Life-limiting conditions encompass a broad range of disorders and illnesses². Nurses play a key role since they are the ones who spend more time with patients³. This patients experince an average of nine distressing symptoms⁴. Pain is the most reported symptom but is only sucessfully managed in 30% of the times, since pharmacotherapy is often insufficient⁵.

METHODOLOGY:

Search strategy:



Data bases:








Inclusion & exclusion criteria:

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none">- Studies focused on non-pharmacological pain management- Pediatric population (0-18 years)- Palliative care regardless of the underlying disease- Interventions in any setting- Management of different types of pain- Literature reviews and quantitative research	<ul style="list-style-type: none">- Studies focused on pediatric oncology population- Pain management while performing a medical procedure- Grey literature (leaflets, editorials, news, publications in congress, ...) and doctoral theses

9 included articles

RESULTS:

Music interventions: 	<ul style="list-style-type: none">• Music in healthcare integrates music medicine, music therapy and other music-based interventions and combines active and receptive methods^{6 7}.• An individual 30-60 minute music session statistically decreases pain level (FLACC scores, Likert Pain Scores, heart rate and distressing symptoms)⁶.• Music has a beneficial effect on the children's coping behaviour and it's immunological status⁷.• Possible beneficial effect of music on neuropathic pain⁸.
Massage therapy: 	<ul style="list-style-type: none">• Massage is easy to perform, affordable and carries low-risks with the benefit of muscle relaxation by reducing tension^{4 5}.• 30-60 minute massages performed by a massage therapist at the patient's hospital room or home reduce pain scores with medium to large effects^{4 5}.• The difference in as-needed pain medication usage before and after the session was not detectable⁴.• Is one of the most common forms of complementary and alternative medical (CAM) therapies⁹.
Aromatherapy: 	<ul style="list-style-type: none">• A sachet format was selected for aromatherapy due to its individual, localized, non-topical use and overall safety¹⁰.• Aromatherapy achieves lower pain scores and comfort sustains longer¹⁰.• A subgroup analysis focusing on the location of aromatherapy delivery demonstrated that the intervention achieves better results in hospital setting¹⁰.
Mind-based interventions: 	<ul style="list-style-type: none">• Mind-body therapies encompass interventions such as guided imagery, breathing techniques, meditation and hypnosis⁹.• Most patients prefer mind-based interventions rather than body-based (massage, yoga, etc...) since they require less physical skills to master and their users expressed benefits on pain management and no side effects⁹.• They seem applicable to treat neuropathic pain⁸.• Visual imagery together with deep breathing resulted in an improvement in pain management although it was not statistically significant and pain rebounded 60 minutes after the intervention¹⁰.
Other interventions: 	<ul style="list-style-type: none">• Reiki therapy is a soothing energy treatment where the practitioner uses light touch or hand placement to reduce pain and help normalize vital signs. Two 24 minute Reiki therapy sessions in the child's home reduce pain scores although there was only a significant decrease (p<0.10) for non-verbal children after the second session¹¹.• Medical cannabis consumed in different formats such as oil drops or smoked reported a beneficial effect on pain levels on 70% of patients. Side effects are uncommon and mostly associated with smoking and long term sequelae are not identified¹².

CONCLUSION:

In conclusion, this review reports music therapy, massage, aromatherapy, mind-based interventions and other interventions such as reiki and medical marijuana as the interventions available for pain management in children receiving palliative care. Results are promising for the use of CAM as an alternative or complement to pharmacological interventions, which will result in a reduction of the use and effects of opioids. However, it also makes clear that there is a gap of research in this topic and future research should focus on conducting randomized controlled trials with larger sample sizes. This would allow for a more accurate assessment of the interventions' impact and generalization of results to broader populations.

BIBLIOGRAPHY:

