The timing of pain education on pain outcomes for children in hospital

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1 BACKGROUND

Pain education provided to paediatric patients varies considerably in content, methods of delivery and settings. Untreated or unmanaged pain is a risk factor for short-term and long-term harm in children and experts recommend early management[1,2]. Different studies introduce education at different times of treatment medical journey involving painful procedures, such as before surgery[3], after surgery[4], and longer term chronic pain.

2 OBJECTIVES

To investigate with a systematic review of the literature the timing of education, relative to the onset of pain, for all pain conditions in children in the hospital setting.

3 METHOD

A systematic literature review was undertaken. A protocol was developed in advance which documented the objectives, inclusion criteria and methods.

The search protocol included
Population - Children aged 0-19 in hospital settings and their parents /caregivers with all forms of pain.
Intervention - Timing of pain education relative to the onset of pain. All education types and duration. Quantitative studies. "Timing" as a search term did not pick up articles relevant to the question and required a lot of hand searching.
Outcomes - Reported pain outcomes related to education provided.

The search involved a comprehensive review of peer-reviewed literature published until Nov 2022.

P - key search terms (child, parent), MeSH (paediatrics), Truncation/wild cards (child, p?diatric) with Boolean operators (and/or) and related thesaurus terms (infant, preschool, teen, carer, mother, father).*
I - MeSH (education as topic), subheadings (prevention and control).

Two passes were completed, first screening of titles and abstracts, then full texts using Covidence. Data was extracted and verified.

Quality assessment was completed with the Cochrane Rob 2.0 and Newcastle-Ottawa Scale for non-RCT studies.

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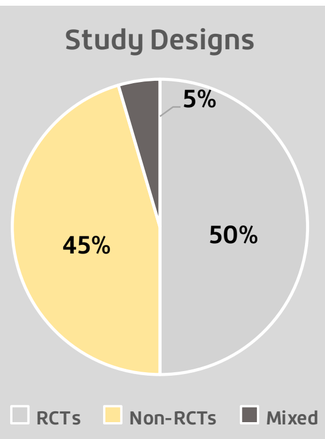
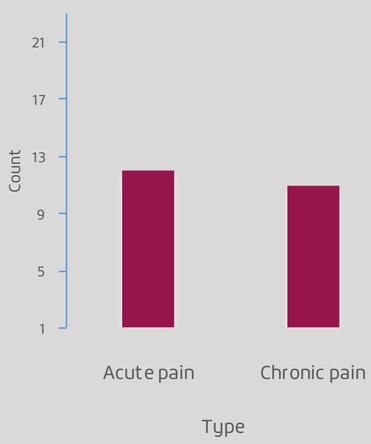
4 RESULTS

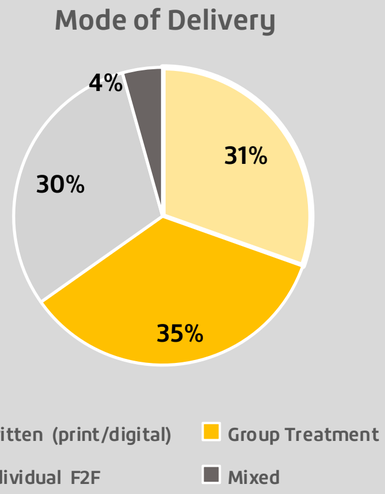
- Database searches yielded 1180 articles published between 2001 -2022, of which 23 full texts were relevant and reviewed.
- There were 11 RCTs, 6 cohort studies, 5 single-arm studies, and one mixed-methods study.
- The range of times education was provided in procedures involving acute pain was between 10.9 days pre-procedure and 6.7 days post-procedure. Between 3months and 16 years for chronic pain conditions.





No studies evaluated the timing of pain education relative to pain outcomes for children.

Quality assessment found only one RCT had a low risk of bias and two non-RCTs were of good quality.



5 DISCUSSION

- Guiding clinical practice is recommendation to provide child patients and families pain neuroscience education to improve pain outcomes. Furthermore, the earlier the education, the better the outcomes. However, the present study was unable to find literature to support this view.
- The included studies varied in design, pain conditions and types of education and comparisons of study outcomes were not made.
- The type of pain education provided was not 'pain neuroscience education.' The question of 'timing' appeared to exclude these studies.

6 SIGNIFICANCE OF RESEARCH

This study has highlighted the need for future investigation into the timing of interventions such as pain education for the management of pain in the hospital setting.

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