Interventions to support parents when managing their child's pain at home: an integrative review

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Outline

Background

Aim

Methods

Results

Links to practice

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Background

Children experience pain as a result of a variety of conditions (Robins et al., 2005; Shapiro et al. 1995; Twycross et al. 2015)

Pain has negative consequences (Berger et al., 2007; Huth et al., 2003)

Care location is changing (Fortier et al., 2014)

Parental pain management? (Finley et al., 1996; Twycross & Collis, 2013)

Pain is treatable (Fortier et al., 2011)

Interventions are costly to design and implement (Craig et al., 2008)
Aim

To identify effective interventions which support parents in managing their child’s pain at home
# Methods – search strategy

<table>
<thead>
<tr>
<th>Child* OR pediatric OR paediatric OR adolescen* OR young adult* OR teenage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
</tr>
<tr>
<td>parent* OR caregiver* OR guardian* OR famil*</td>
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<tr>
<td>AND</td>
</tr>
<tr>
<td>pain management</td>
</tr>
<tr>
<td>NOT</td>
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<tr>
<td>PICU or “paediatric intensive care” OR “pediatric intensive care”</td>
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<tr>
<td>OR</td>
</tr>
<tr>
<td>death OR dying OR bereave*</td>
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<tr>
<td>OR</td>
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<tr>
<td>“painful procedures” OR immunisation OR immunization OR inject*</td>
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<tr>
<td>OR</td>
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<tr>
<td>pregan* OR labour OR labor</td>
</tr>
</tbody>
</table>

## Databases:
- CINHAL
- Scopus
- Web of Knowledge
- Science Direct
- PubMed

Limiters applied where available
Study characteristics I

Sample size
- Median = 70 (IQR:47-108)

Follow up
- Median 4 days (IQR: 3-109)

Condition
- Post-operative pain (n=15)
- Migraine (n=1)
- Chronic idiopathic pain (n=1)

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Study characteristics II: Design

Design

- RCT (n=13)
- Other quantitative (n=3)
- Mixed methods (n=1)

Control

- Standard care (n=8)
- Other (n=7)
- No control (n=2)
Study characteristics III: Risk of bias

- Underpowered (9/17)
- No control group (2/7)
- Randomisation problems (7/17)
- Characteristics of participants who withdrew (3/17)
- Homogeneity of groups (7/17)

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Results – by intervention type

Health care professional

Parent targeted (n=8)

HCP-parent interaction (n=2)

Child

Child-parents interaction (n=5)

Multifaceted interventions (n=2)

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Interventions in full

- Health care professional
  - Nurse phone call (n=1)
  - HCP education (n=1)
- Parent
  - HCP-parent interaction (n=2)
  - Parent targeted (n=8)
  - Parent education (n=5)
  - Parent education (n=2)
- Child
  - Child-parents interaction (n=5)
  - Multifaceted interventions (n=2)
- Around the Clock (n=3)
  - + nurse coaching (n=2)
  - Written (n=2)
  - Written and verbal (n=3)
  - Pain assessment (n=3)
  - CBT (n=1)
  - Take home analgesic (n=1)
  - PPPM
  - Wong-baker faces
  - Temporary tattoo

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Results – by outcome

Reducing child pain

Parent targeted
(n=3)
Allen & Shriver (1998)
Bailey et al. (2015)
Sutters et al. (2010)

Increasing analgesic administration

Parent targeted
(n=4)
Chambers et al. (1997)
Sutters et al. (2004)
Sutters et al. (2010)
Wiggins (2009)

HCP-parent interaction
(n=2)
Paquette et al. (2013)
Sepponen et al. (1999)
Pain reduction vs analgesic administration

Inadequate strength of analgesic

- Paracetamol + codeine vs paracetamol + hydrocodone (Sutters et al., 2004 & 2010)

Child pain assessment

- Pain level satisfaction (Vincent et al., 2012)
- Activity limitations (Palermo et al., 2009)
- Pain behaviour (Helgadottir & Wilson, 2014)
Reasons for intervention effectiveness

- Analgesic effectiveness
- Pain education
- Pain assessment tools
- Attitudes

• Multifaceted
• Tailored

Pain management features

Research design features

Intervention features

• Sample size
• Pain measure
• Compliance measure
• Sedation measure

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Links to practice

• Tentative conclusion regarding type of intervention
  – Parent targeted

• As nurses
  – Ensure analgesic drugs of appropriate strength are provided

• As researchers
  – Interventions which are tailored and multifaceted may be more successful
  – Ensure funding available for sufficiently powered samples
  – Consider other measures of pain
Summary

- Interventions to support parents managing pain at home are required
- After scoping review, 17 interventions included
- Interventions skewed towards
  - Postoperative pain
  - Caucasian population
- Easier to increase analgesic administration than reduce pain due to
  - ... inadequate analgesics?
  - ... inadequate pain assessment?
- Reasons for intervention effectiveness
  - Pain management features
  - Research design features
  - Intervention features
References


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Any questions?

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