Pediatric Postoperative Pain Medication: Demographic Predictors and Parent Medication Attitudes

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**INTRODUCTION**

- Over 85% of children experience significant pain after surgery, according to parent reports. Despite this presence of pain, a quarter of these children receive very little or even no pain medication at home (Fortier, MacLaren, Martin, Parrot-Kamins, & Kain, 2009).
- Poor pain management in children can have harmful long-term consequences, both physically and psychologically. For example, past research concluded that undertreated pain in infants may permanently decrease pain tolerance and increase pain responses later in life (Harris, Meyers, & Messing, 2013).
- Previous research indicates that the beliefs and attitudes parents have regarding analgesics significantly impact how much pain medication is administered to children in the home (Rosales, Fortier, Campos, & Kain, 2016).
- In light of the current opioid epidemic, parents might be generalizing common misconceptions about opioids to all analgesics. Common misconceptions include the beliefs that analgesics are addictive and that children should take as little as possible. These misconceptions may explain why parents often administer less than the prescribed dosage or even administer a less potent medication than prescribed to their postoperative children (Zisk-Rony, Fortier, Chorney, Perrett, & Kain, 2010).
- In an effort to combat this undertreatment issue, the purpose of the present study is to identify the demographic of parents who are most likely to have misconceptions concerning analgesics.

**METHOD**

**Participants:** 112 patients undergoing surgery at the Children’s Hospital of Orange County between the ages of 2 and 13 (M = 5.79, SD = 2.738), 59% male and 41% female. 47% Hispanic, 25% White, and 28% other.

**Procedures:**
- At baseline (before surgery), parents completed online surveys through Qualtrics survey software in the hospital, where they reported medication attitudes and demographics.
- Then, at home (1, 3, and 7 days after surgery), parents were emailed Qualtrics survey links and completed the surveys on their own devices. On each survey, parents reported the names and amounts of analgesic medications their child consumed.

**MEASURES**

**Parent Medication Attitudes**

Measured using the Medication Attitudes Questionnaire (MAQ; Forward et al., 1996)

Measures parents’ attitudes and beliefs about analgesic use to treat children’s pain

Split into 3 subscales:

- **Fear of Side Effects** e.g. “side effects are something to worry about”
- **Avoidance** e.g. “works best when given as little as possible”
- **Appropriate Use Attitude** e.g. “little risk of addiction when given for pain”

(1 = Strongly Disagree, 7 = Strongly Agree)

**Medication Consumption**

Acetaminophen and Ibuprofen amounts were aggregated for each day and then divided by the child’s weight.

**RESULTS**

**Interaction of Child Sex and Ethnicity on Parents’ Score for Fear of Side Effects**

<table>
<thead>
<tr>
<th>Fear of Side Effects</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Children’s Medication Consumption in Lower and Higher Income Households**

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Acetaminophen</th>
<th>Ibuprofen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income ≤ $100,000</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>High Income &gt; $100,000</td>
<td>3.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**REFERENCES**


