All Reassurance is Not Created Equal: Adult Reassurance during Pediatric Venipuncture

C. Meghan McMurtry¹, Patrick J. McGrath²-⁵, & Christine T. Chambers²-⁴

¹Department of Psychology, University of Guelph; Guelph, ON
²Centre for Pediatric Pain Research, IWK Health Centre; Departments of ³Psychology, ⁴Pediatrics, and ⁵Psychiatry, Dalhousie University; Halifax, NS

Introduction:
- Adult reassurance during children’s painful medical procedures (e.g., immunizations) is consistently linked with increased child pain and distress (McNeat et al., 2006).
- Exactly what is said in reassurance may be important (McMurtry et al., 2007; Dahlquist et al., 1994) as children’s perceptions of adult emotion vary with verbal content (McMurtry et al., 2010). Also, verbalizations with varying command structures (e.g., vague vs. specific) show different relationships with child outcome (Dahlquist et al., 1994).
- Little is known about the verbal content of spontaneous reassurance.

Objectives:
1) To create a detailed description of the verbal content of spontaneous reassurance during pediatric venipuncture
2) To explore the relationships between reassurance subtypes and child outcome.

Methods:
This was part of a larger study on children’s perceptions of parental behavior during medical procedures (McMurtry, 2009; McMurtry et al., 2010).

Participants:
- 100 children 5–10 years old (M = 8.02; SD = 1.69), their parents (86 mothers, 14 fathers), & staff (n = 14).
- Recruited from an outpatient blood lab.

Measures:
- 9 item reassurance coding scheme (Table 1)
- Spontaneous adult reassurance, child distress & coping during venipuncture: Child Adult Medical Procedure Interaction Scale (CAMPIS; Blount et al., 1989).
- Children’s pain: Faces Pain Scale – Revised (Hicks et al., 2001).
- Child Anxiety and Pain Scales (Anxiety scale; Kutner & LePage, 1989)

Procedure:
- Pilot classification via expert feedback (n= 510/10 surveyed). Next, card sort task by authors on reassurance from another data set (5 year olds’ immunizations) – 96 codes. 1 code (comparison) added after review of current data → 9 item scheme (Table 1).
- All spontaneous reassurance (CAMPIS) by staff and parents during venipuncture was isolated from transcripts and coded.

Results:
- 1240 verbalizations coded from 100 venipunctures
  - Staff = 622, 50.2%
  - Parents = 618, 49.8%
- Inter-rater reliability on 20% of verbalizations was excellent (k = .79, SE = .03; Fleiss, 2003).

Table 1. Nine reassurance subtype coding scheme.
<table>
<thead>
<tr>
<th>Reassurance Type</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal of procedure completion</td>
<td>Reassurance indicating procedure is finished and occurs following needle removal.</td>
<td>It’s done</td>
</tr>
<tr>
<td>Permitting emotional expression</td>
<td>Reassurance indicating it is okay to feel scared or cry otherwise express themselves.</td>
<td>It’s okay to be a little nervous</td>
</tr>
<tr>
<td>Minimizing</td>
<td>Reassurance denying or dismissing: (a) child’s experience of pain or distress; or (b) procedure child is undergoing. Tends to focus on negative or use minimizing language (e.g., only, just).</td>
<td>Don’t worry.</td>
</tr>
<tr>
<td>Automatic/ Uninformative</td>
<td>Brief, often repetitive, reassurance by adult that does not appear to be informative to child or in response to child’s behaviour. Generally in present tense.</td>
<td>It’s okay</td>
</tr>
<tr>
<td>Parental support/ proximity</td>
<td>Reassurance indicating parental help such as parental presence or other caring actions.</td>
<td>Mommy hold your hand</td>
</tr>
<tr>
<td>Indicating procedural events</td>
<td>Reassurance providing information on current status of procedure, including utterances such as “that’s it”.</td>
<td>It’s in, it’s in</td>
</tr>
<tr>
<td>Comparison</td>
<td>Reassurance comparing procedure (and/or pain/distress) to another event.</td>
<td>It’s not as bad as when you …</td>
</tr>
<tr>
<td>Encouragement</td>
<td>Reassurance intending to build child’s confidence. Often, but not always, in future tense. Child is referred to (i.e., you’ll be fine) vs automatic.</td>
<td>You’ll be okay.</td>
</tr>
</tbody>
</table>

Table 2. Correlations between the child outcome variables and the proportions of individual reassurance subtypes (rs (99) = .65, p < .01).

Discussion:
- Categorized 9 subtypes of adult reassurance with somewhat differential relationships to child outcome. Two subtypes (automatic/uninformative, signal completion) were most robust.
- Consistent with present relationship with negative child outcome in these data, reassurance not related to negative child outcome new information for the receiver viewed as problematic in psychotherapy (Andrews, 1945) and in adult pain (Linton et al., 2008).
- Adults tended to make comments such as “that’s it” when the needle was inserted but before removal. Adults may believe “worst” part of the needle is insertion but this may not be true from children’s perspective.
- Strong similarity between an adult saying “you’re okay” (reassurance as encouragement) and a child’s statement “I’m okay” (CAMPIS coping behaviour). “I’m okay” could be also be seen as self-reassurance. Post-hoc analysis revealed no relationship between these behaviours in our data.
- Reassurance may act as permission for overt distress. Automatic/uninformative reassurance facilitates child distress, message is likely not transmitted via verbal content.
- Eight subtypes combined into 2 categories. 1) Emotional reassurance related to increased child pain, fear, distress. 2) Procedural reassurance related to better child outcome (lower self-, parent-report of fear, increased child coping).
- Current classification of reassurance limited by correlational nature. Further research should investigate potential different types of reassurance and relationships with child distress.
- Results provide initial, exploratory step to determine impact of different reassurance on children’s distress during painful procedures. Results challenge prevailing assumption that reassurance is unitary construct.

Acknowledgements: This research was conducted at the IWK Health Centre and Dalhousie University, Halifax, NS and was supported by an IWK Agency A Grant and Canada Research Chairs (CRC) awarded to Chambers and McGrath. At the time of the research, McMurtry was supported by a CIHR CGS Doctoral Research Award and the CIHR Training Group Pain in Child Health.