

Parent perspectives on a knowledge translation resource for pediatric vaccination pain management

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Background

- Many evidence-based (EB) strategies are available to manage vaccination pain in children. However, there is a lack of knowledge and subsequently poor uptake of these strategies
- A KT tool was created for parents and disseminated in partnership with a Canadian parenting magazine (online and print).
- This KT tool shared EB vaccination pain management strategies from infancy to adolescence: Physical (e.g., positioning)
Psychological (e.g., distraction)
Pharmacological (e.g., topical anesthetic)
- Over 80,000 parents were exposed to the KT tool via print, online, e-newsletters, and social media. However, parents' preferences for the presentation of the information in the tool is not well understood.

AIM: To evaluate parents' perspectives on the acceptability, utility, and design of this KT tool to better understand how to create effective parent-directed KT interventions.

Methods

NEEDLES DON'T HAVE TO HURT

Keep this timeline handy to make your child's vaccinations easy peasy

A FEW DAYS BEFORE THE NEEDLE	30-60 MINUTES BEFORE THE NEEDLE	RIGHT BEFORE, DURING AND AFTER THE NEEDLE
<p>ALL AGES</p> <ul style="list-style-type: none"> Be honest. Talk with your children about strategies to manage their pain and distress. Ask children over 10 if they want you to be there for the needle. 	<p>30-60 MINUTES BEFORE THE NEEDLE</p> <ul style="list-style-type: none"> Apply numbing creams or patches (topical anesthetics such as EMLA[®], AMETOP[®], and Maxilene[™]), available for purchase from pharmacies without a prescription. Follow instructions - product must be applied 30 to 60 minutes before the needle to the area where the needle will go. Apply cream to multiple areas if your child is having more than one needle. Ask if you are not sure exactly where on the body the needle will be given. 	<p>RIGHT BEFORE, DURING AND AFTER THE NEEDLE</p> <ul style="list-style-type: none"> Stay calm and interact normally with your child.
	<p>BARBES UP TO AGE TWO</p> <ul style="list-style-type: none"> Sit upright. Newborns (younger than one month) can be held skin to skin against your chest. Young children can sit on your lap. Hug but don't hold too firmly. Needle location: <ul style="list-style-type: none"> Babies under 1 year: upper outer thigh. Babies 12 months and older: upper arm. Breastfeed (if possible). If your child unlatches, gently reposition when your child is ready. Or give sugar water 1-2 minutes before the needle (1 tsp white sugar dissolved into 2 tsp boiled or distilled water). Or have your child suck a finger or a pacifier. 	
	<p>CHILDREN TWO TO 17</p> <ul style="list-style-type: none"> Use neutral language rather than drawing attention to pain. <ul style="list-style-type: none"> Let children/teens know when things are going to start by saying "Ready?" or "Here we go" Avoid reassuring (e.g. "It'll be over soon" and "You're OK") as it can increase distress and pain. Distraction by taking their attention away from the pain. <ul style="list-style-type: none"> Watch a video together and ask questions about it. Encourage listening to music through headphones. Talk about something fun (e.g. birthday party). Play with toys that encourage deep breathing, such as blowing a pinwheel or bubbles. Get support from a registered psychologist if your child has severe needle fear or phobia. 	
	<p>CHILDREN SEVEN TO 17 WHO FEEL PAIN WHEN GETTING NEEDLES</p> <ul style="list-style-type: none"> A simple technique called muscle tension can raise blood pressure and stop these feelings. <ul style="list-style-type: none"> Ask your child to recline or lie down if possible and tighten his/her leg and stomach muscles (not the arm where the needle is going to be given). Tensing should continue for about 20 seconds until your child is feeling flush in the face. Stop tensing for five seconds (without fully relaxing) before tensing again. 	

20 parents of vaccinated children aged 0-17 years (95% mothers; 95% Caucasian) took part in **semi-structured interviews** as part of a larger mixed-methods study on parent use of a KT tool (pictured left).

Interviews followed parents' use of the KT tool during their child's recent vaccination (95% received influenza and/or a routine vaccination). Interviews were analyzed using **reflexive thematic analysis**.

Results

Theme One: The Relevance of Content in the Resource

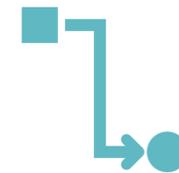
The applicability and practicality of the information was most impactful when accompanied by guidance on how to use it.



I liked how it presented what to do a couple of days before, right before, and then during. Because that's something I didn't really know how to handle. Like in the days before, do you talk about it or do you not talk about it? It is good that it lays out how to handle it the days before, as well as what to do when you're actually in there. (Father of preschool-age child)

Theme Two: The Layout and Design of the Resource

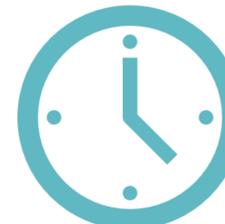
The visual organization and presentation influenced the ease with which parents could extract information from the tool.



It was really easy to read, and it didn't feel like it was really text heavy. I felt like it was really easy to pick out the strategies and visually it was really appealing....I didn't feel like, oh my gosh, I have to read this whole thing. It was very easy to read. (Mother of an infant)

Theme Three: The Format and Timing of Information Delivery

Parents preferred quick access the KT tool through their device or paper version, so it was easily accessible at the time of the child's vaccination.



I'm already packing the diaper bag with all of the things. So just to have a resource to read, you know, hopefully in the weeks to months leading up to even the very first vaccine would be super helpful. But for me, you know, already having an older child at that time, or preschool aged child, and then having a new baby, it's good like to have that refresher. (Mother of a toddler)

Discussion

- Parents found this resource to be acceptable and useful in terms of the content, design, and delivery of the information, with particular emphasis places on amount and layout of information.
- Developers of KT tools geared toward parents should increase accessibility of information visually, and in terms of the content, so parents can quickly extract information and apply it in clinical situations.
- Future research should examine the utility of KT tools with a more diverse sample to determine if information needs differ among parent groups.

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