Assessing parental pain information needs related to their child's surgical procedure

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Background

- Pediatric surgical patients inherently experience some degree of postoperative pain.
- Knowledge translation issue: despite advances in assessment and treatment of pediatric pain, significant numbers of hospitalized children continue to experience moderate to severe pain (1, 2).
- Parents are key participants in their child's care in the hospital setting and a vital link between their child and nursing staff in postoperative pain management (3). Assisting with children's postoperative pain within the unfamiliar and busy hospital environment is challenging for parents.
- Parents identify the need for postoperative pain knowledge as a means to assist their child with postoperative pain management. Parents suggest improving the type of pain-related information and how it is communicated by nursing staff, with the desire for this information to be individually tailored to their needs (4).
- Parental satisfaction with hospital care is influenced by adequacy of pain management and clinician communication skills (5). Greater parental participation in care is associated with lower parental perception of child's pain (6).
- Nurses must adequately assess parental pain information needs prior to their child's surgical procedure so that essential information is provided during the preoperative and postoperative periods. The literature identifies a lack of consistent tools to assess pain information needs from a parental perspective.

Research Question:
What are the pain information needs of parents related to their child's surgical procedure?

Methods

1) Questionnaire Development

- Questions were developed from the existing literature. Two NPs from the Stollery Chronic and Acute Pain Services and one pediatric nurse researcher assessed content validity of questionnaire.
- A quantitative, descriptive design was utilized to identify the types of pain information parents received and how satisfied they were with this information, combined with open-ended questions for comments.

2) Data Collection

- Participants were recruited from day and inpatient surgical units at the Stollery Children's Hospital (August 4-26, 2015)
- Inclusion criteria: parents whose child (aged 0-17 years), has undergone an elective surgical procedure at the Stollery Children's Hospital, and who can speak, read, and write English.
- Data were collected via a written questionnaire administered near the time of the child's hospital discharge.
- Unit nurses initially approached parents who met the inclusion criteria regarding participation in the study. Research assistant explained the study, obtained parental consent, and provided questionnaire.

3) Data Analysis

- Data was entered by one research assistant. A 10% data entry check identified 100% accuracy.
- Quantitative data analysis was carried out using the Statistical Package for the Social Sciences (SPSS).
- Qualitative data analysis was carried out using NVivo.

Acknowledgements:

- We would like to thank the nurses from Unit 4D and the Day Surgery Program at the Stollery Children's Hospital who were involved in initially approaching parents regarding study participation.
- This project was developed from the MN capping exercise "Assessing Parental Pain Information Needs Prior to a Child's Surgical Procedure" (Leeann Lukenchuk, 2012).
- M.J. Klute is the recipient of a CIHR Health Professional Student Award, AIHS Summer Studentship, and Faculty of Nursing Undergraduate Summer Student Research Award.
- Dr. Shannon Scott holds a Canada Research Chair (Tier 2) for Knowledge Translation in Child Health and a Population Health Investigator Award from AIHS.

Results

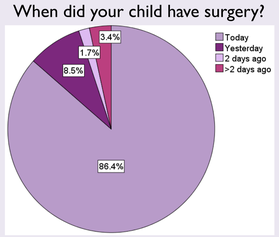
Table 1. Demographic characteristics of sample of parents whose children underwent a surgical procedure at the Stollery Children's Hospital.

Variable	Day Surgery n	Day Surgery %	Inpatient Surgery n	Inpatient Surgery %
Gender				
Female	35	68.6	7	87.5
Male	16	31.4	1	12.5
Relationship to child who had surgery				
Mother	31	62.0	5	71.4
Father	17	34.0	1	14.3
Parent (not specified)	2	4.0	-	-
Guardian	-	-	1	14.3
Age				
20-30 years	7	13.7	-	-
31-40 years	25	49.0	4	50.0
41-50 years	14	27.5	3	37.5
≥51 years	5	9.8	1	12.5
Marital status				
Married	49	96.1	8	100
Single	2	3.9	-	-
Highest level of education				
Some high school	4	8.0	-	-
High school diploma	5	10.0	2	25.0
Some post-secondary	3	6.0	1	12.5
Post-secondary certificate/diploma	16	32.0	1	12.5
Post-secondary degree	12	24.0	2	25.0
Graduate degree	10	20.0	2	25.0

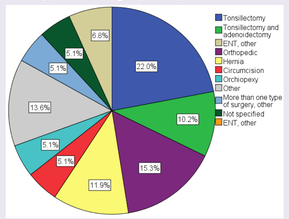
Table 2. Age of the child who had surgery at the Stollery Children's Hospital.

	n	Mean Age (years)	Min. Age (years)	Max. Age (years)	Standard Deviation
Day surgery	51	7.68	0	17	4.955
Inpatient surgery	8	7.88	0	14	5.027

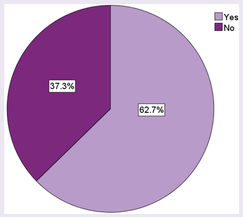
When did your child have surgery?



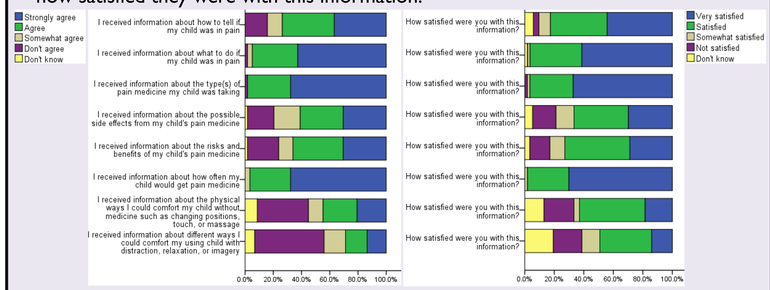
What type of surgery did your child have?



Was this your child's first surgery?



- Types of information parents received about child's pain and pain management, and how satisfied they were with this information:



- Parents were generally satisfied to very satisfied with the information they received regarding: how to tell if their child was in pain, what to do if their child was in pain, the type(s) of pain medicine their child received, and how often their child would receive pain medicine.
- Parents were generally less satisfied with the information they received regarding: possible side effects, and risks and benefits, of their child's pain medicine, and non-pharmacological pain management interventions (physical and psychological).

Were you comfortable asking questions about your child's pain and pain management?

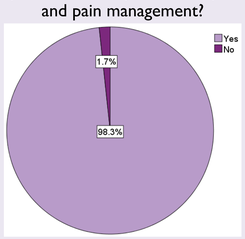


Table 3. Where parents obtained information regarding their child's pain and pain management (parents could indicate more than one information source).

Information Source	Day Surgery (%)	Inpatient Surgery (%)
Surgeon	43.1	37.5
Stollery Pre-Admission Clinic (PAC)	31.4	25.0
Bedside nurse	84.3	87.5
Internet	5.9	0
Print materials	3.9	0
Parent educational background	0	12.5
Other	2.0	0

Results Continued

Table 4. Major parental pain information needs identified from qualitative data analysis of comments.

Theme	Data excerpts
1) Child's pain medicine, including side effects and risks/benefits	"Would be nice to have times of medicine written down." "As a [non]-medical person, being told the name of a medicine quickly among other quickly named medicines doesn't really inform me about the specifics of each one. I know that most nurses don't have to give a lesson every time. Maybe a referral to where to look." "Most information related to the benefits of pain medication not the risks." "[I would like to see] information more specific to side effects of general anesthetic rather than pain medication side effects." "Nothing was discussed regarding possible side effects, nor was this on the information sheet." "[My child] was only on over the counter medications, therefore not expecting significant side effects."
2) Physical pain management interventions (e.g. changing positions, touch, or massage)	"Was not told about [physical pain management interventions]." "Nothing mentioned regarding comfort except for hydration, popsicles, ice, Ibuprofen, and Tylenol." "They only mentioned activities to avoid so to not cause or increase pain."
3) Psychological pain management interventions (e.g. distraction, relaxation, or imagery)	"Nothing said [regarding psychological pain management interventions]." ""The nurse brought [my child] a DVD; this is how I was informed." "I would have liked to have these options."
4) Other specific questions or pain information needs	"I don't remember being told how to tell if [my child] was in pain." "Would like a list [of types of pain medications and other pain relief options] before we arrive [in hospital]: popsicles, ice cubes, and cold ice water. A dosage chart for approximation [by child's weight] would help." "Would like to know more about…alternatives to pain medication." "If the regular pain medications were not sufficient, would be good to know if any other options."

Table 5. Other major themes identified from qualitative data analysis of parents' comments.

Theme	Data excerpts
1) Role of nursing staff in pain management and education	"The staff were wonderful at bedside explaining pain management." "Staff were helpful, informative, and exceptionally kind. Thank-you!" "[The nurses] are very good at assessing the pain level. I think they pay attention if the child is in pain and react immediately."
2) Role of parent in pain assessment and management	"I am aware of things I could do already [re: psychological pain management interventions]." "I know when my child is in pain so I don't see the need to be told [information about how to tell if my child was in pain] in full detail."
3) Impact of age of child on pain management	"My [child] is 15 and we can discuss anything that they need." "[My child] is old enough to explain how they feel, so didn't need info [about how to tell if my child was in pain]. Assuming this, they didn't give any."
4) Pain information quality and clarity	"[The types of pain medicine were] written on discharge instructions that I was given to take home!" "Specific times of when last pain medication was given and when each is due plus how often both can be given for the next 1-2 weeks. Very helpful!" "They were very good in letting us know what our child had [for pain management] prior to surgery and what they had after. Also how to manage the pain at home and how often." "If I have questions, I…ask them, and info is clear and easy [to understand]."
5) Other comments	"I got satisfactory answers to all my questions. I am happy!" "Would like to know why some healthcare staff do not validate the patient's pain perception." "I once ask an anesthesiologist what drugs they would be giving my son and was treated as if I had invaded their personal life. He said "why would you need to know that?""

Significance

- This project was designed as a pilot study, leading towards a future larger scale study. The purpose of this larger scale study will be to develop a tool for nurses to use preoperatively to identify parental pain information needs.
- Nurses will be able to provide more effective teaching during the preoperative and postoperative phases.
- Parents will be empowered to effectively participate in their child's postoperative pain management.
- More effective pain control for children and improved pediatric health care. Inadequately managed pain has physical and psychological risks for both the child and family.

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References:
(1) Stevens et al. (2011). *CMAJ, 183*, E403-E410. (2) Taylor et al. (2008). *Pain Res Manag, 33*, 25-32. (3) Woodgate & Kristjanson. (1996). *Int J Nurs Stud, 33*, 271-284. (4) Kankkunen et al. (2004). *J Pediatr Nurs, 19*, 133-139. (5) Homer et al. (1999). *Arch Pediatr Adolesc Med, 153*, 1123-1120. (6) Kristensson-Hallstrom. (1999). *J Clin Nurs, 8*, 586-592.