Understanding parents’ perceptions of pain treatment at the CHEO Family Flu Clinic

Juliana Choueiry, BScN Student, Jessica Reszel RN, MScN, Denise Harrison RN, PhD

1School of Nursing, University of Ottawa; 2Children’s Hospital of Eastern Ontario

Methods

Recruitment: parents were invited to complete a brief survey after their children received influenza vaccination

Data collection: paper-based 8 question survey regarding (1) their child(ren)'s pain/distress before, during, and after vaccination, (2) pain treatment used, and (3) perceived effectiveness during influenza vaccination at the 2016 CHEO Family Flu Clinic.

Data entry: survey data entered into REDCap database

Data analysis: data analyzed in Excel using descriptive statistics

Results

A total of 111 surveys were completed, reporting data on 219 children (representing a 70% response rate, as there were 311 children vaccinated at the clinic). Most children were between the ages of 3 and 12 years (Figure 1). Data on only 2 infants was collected. As this number of infants is too small to draw any conclusions, the results focus on the older age groups.

Parents perception of child(ren)’s level of distress (Figure 2):

- Before: 42% of children, 11% of toddlers and 6% of teens were distressed*.
- During: 41% of children, 52% of toddlers and 9% of teens were distressed*.
- After: the proportion of distressed children declined for all age groups. Teens were the least likely to be distressed overall.*Children (n=158), Toddlers (n=27), Teens (n=32)

Pain treatment used by age group (Figure 3):

- Toddlers: distraction was most frequently used (60%), followed by the numbing spray** at 40%.
- Children: distraction and numbing spray were used most frequently (49% and 47%, respectively).
- Teenagers: most reported not receiving any pain treatment (81%).

Pain treatment that parent’s perceived to be effective:

- Over half of all children (54%) received a pain treatment that was perceived to be either somewhat or very effective.
- Overall, distraction (44%) and numbing spray (41%) were the most frequently used pain treatment.
- A combined treatment of distraction and numbing spray for toddlers, children, and teens was perceived as effective by most parents (88%) (Figure 4).

**Topical anesthetic skin refrigerant (ethyl chloride) to control pain associated with injections.

Discussion

- 42% of children were distressed before the injection, representing a high proportion of anxiety and fear of needles.
- 41% of children and 52% of toddlers remained distressed during the injection. It is important to work on decreasing these proportions in order to promote minimal painful vaccinations and alleviate the association of pain and medical interventions.
- Results indicate that 22% of toddlers and 27% of children received no pain treatment, the age groups most likely to be distressed. Therefore, the team will aim to use effective knowledge translation strategies targeted at families and staff to promote consistent use of recommended pain treatment during influenza vaccination.

- This quality assurance study successfully captured data on 70% of children who attended the 2016 CHEO Family Flu Clinic. Reasons for this response rate might include:
  - The flu clinic also offers small, quiet rooms with one support for more anxious children. Some children were not captured in our survey results due to receiving their vaccination outside of the large public room;
  - Some parents may not have waited the 15 minutes in the large room where surveys were being distributed.

Conclusion

The results of this survey will inform both the planning of appropriate resources and interventions for future vaccination clinics and the planning of a study for the 2017 CHEO Family Flu Clinic.

Acknowledgements

I would like to acknowledge the CHEO Occupational Health Team and the University of Ottawa Undergraduate Research Opportunity Program for their support.