

# Reducing the tears and fears at the CHEO Family Flu Clinic

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## Introduction

Early childhood vaccination is vital for public health. However vaccinations are painful and distressing and may lead to a fear of injections and other medical care. Pain management strategies are available for babies and children and include:

- Small volumes of sweet solution (sucrose) or breastfeeding for babies
- Secure upright front-front holding for babies and young children
- Distraction and topical cooling solutions (PainEase) for school-age children

Each year, the Children's Hospital of Eastern Ontario holds a Family Flu Clinic for staff and their families where recommended pain treatment strategies are put into practice.



## Aims

The purpose of this study was to establish whether these interventions are effective by:

- 1) Establishing the number and characteristics of distressed children at the 2015 CHEO Family Flu Clinic
- 2) Ascertain parents' perceptions of their child(ren)'s distress and effectiveness of pain treatment

## Methodology

There were two components to this study:

- 1) A public observation by 2 trained coders to identify distressed children attending the CHEO Family Flu Clinic using a checklist of common descriptors of distress such as crying, screaming, and resisting. Distress was recorded before, during, and after flu vaccinations.
- 2) A survey of parents who attended the CHEO Family Flu Clinic which included two questions on parents' perception of their child(ren)'s distress and effectiveness of pain treatment.

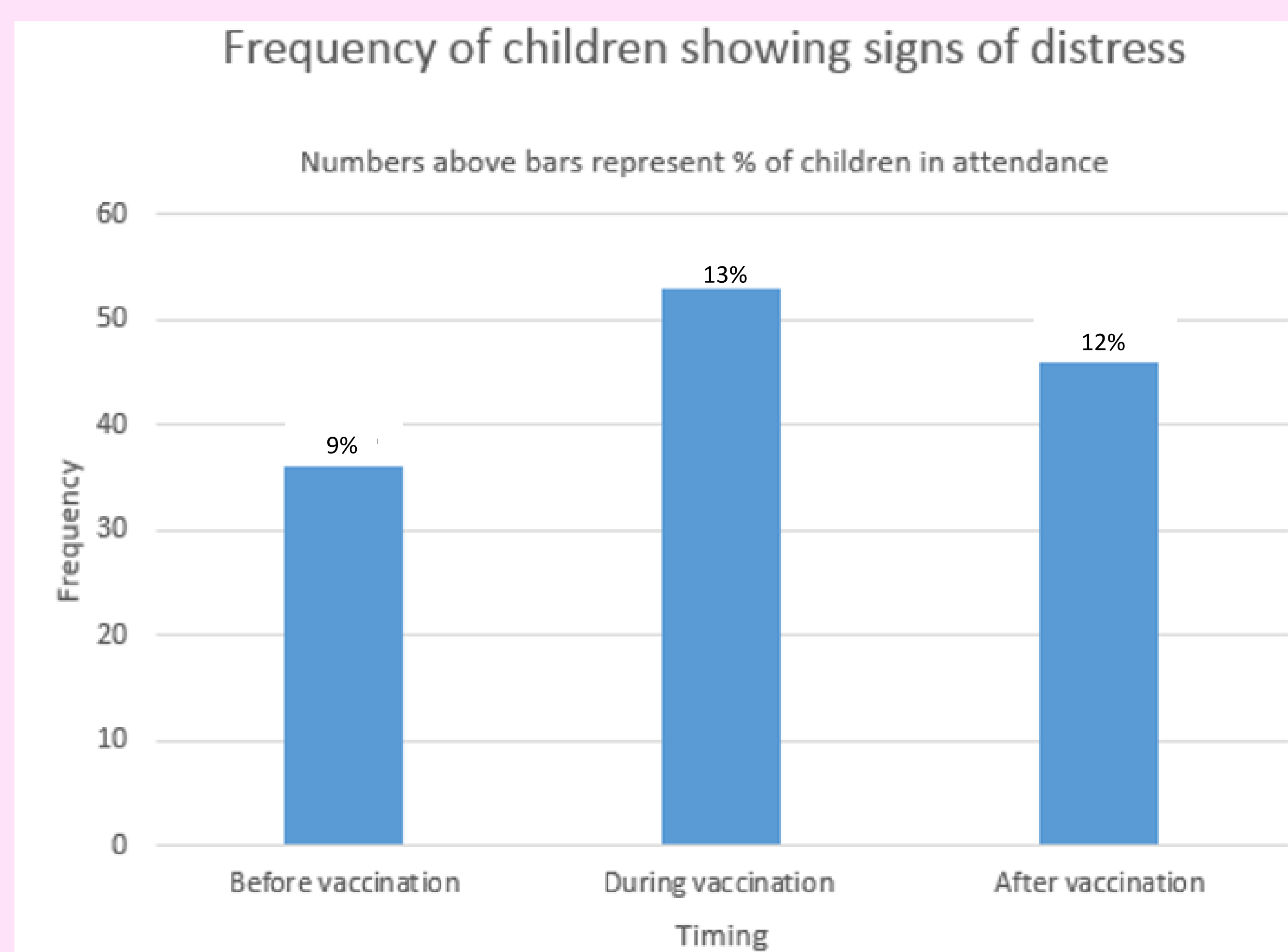


Figure 1: Frequency of children showing signs of distress

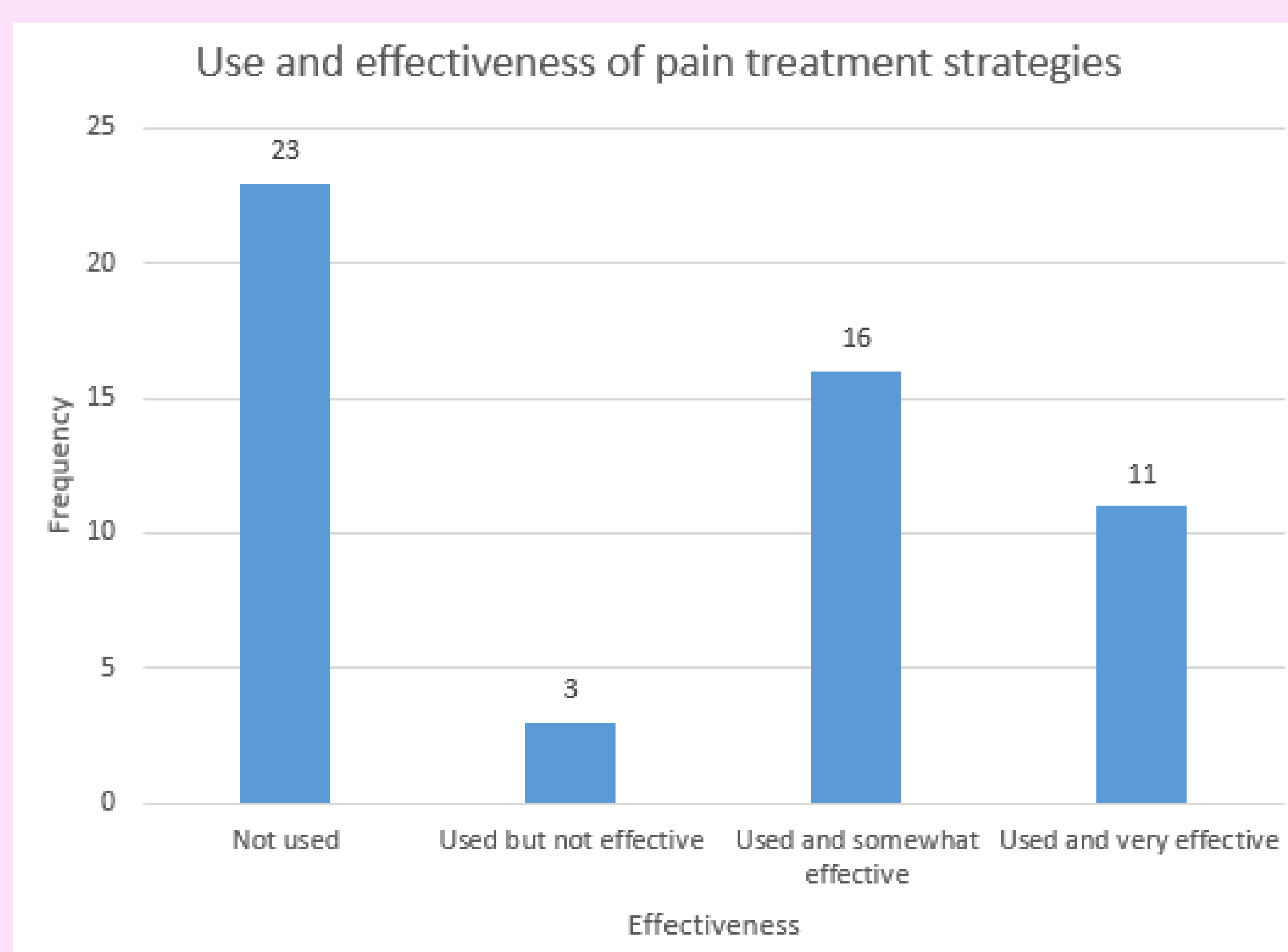


Figure 2: Use and effectiveness of pain treatment strategies (parental survey results)

## Results

### Observational Data

- 395 children were vaccinated. 60 (15.2%) were recorded as distressed before, during, and/or after receiving their vaccination (Fig. 1)
- Most commonly observed signs of distress were crying, screaming, and struggling
- The median age of children showing signs of distress was 3 years old, with ages ranging from 6 months to 12 years and an interquartile range of 3
- Over half (n=33, 55%) of the children were male
- Median length of vaccination (from the time the child sat down until they received a bandage or gauze pad) was 3 minutes, but ranged up to 20 minutes

### Survey Data

- Fifty-six parents completed the survey (survey response rate = 14%)
- 25 (45.5%) parents said their children were distressed before, 20 (36.4%) during, and 9 (16.4%) after vaccination
- 30 (56.6%) parents reported the use of pain management strategies with variable effectiveness (Fig. 2)



## Discussion and Conclusion

This study showed that many children were distressed during vaccination, despite attempts to consistently use effective pain treatment strategies.

Study limitations include:

- Low survey response rate (14%)
- Some highly distressed children were vaccinated in a designated "quiet room" staffed by Child Life Specialists for additional support and thus were not included in the observational component of this study

Recommended pain treatment strategies need to be consistently used, and initiated from the time of the first vaccinations. This will minimize the risk that children learn to associate vaccinations with pain and fear.



## Acknowledgements

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