



Objective

To determine the effectiveness of using a distraction DVD (“The Lion King”) or vapocoolant spray to reduce a child’s pain/anxiety associated with immunization administration.

Background

- Children’s pain/crying/anxiety is one reason parents procrastinate immunizations.
- Use of distraction or topical anesthetic sprays relieve pain during procedures in the hospital.
- Reduction of pain may promote timely administration of future immunizations.

Demographics

- n = 68
- Parents with 2 - 4 year-old child: 46%
- Parents with 5 - 10 year-old child: 38%
- Parents with 11 - 12 year-old child: 16%

Method

- Informed consent/assent obtained.
- Twelve-item questionnaire developed using Likert scale, Wong-Baker FACES pain scale, multiple choice questions, and open answer questions.
- Participants randomized to one of three groups: distraction DVD (“The Lion King”), vapocoolant spray, control.
- Questionnaire distributed at pediatric practice site and collected at conclusion of office visit.
- Children allowed to choose a toy.

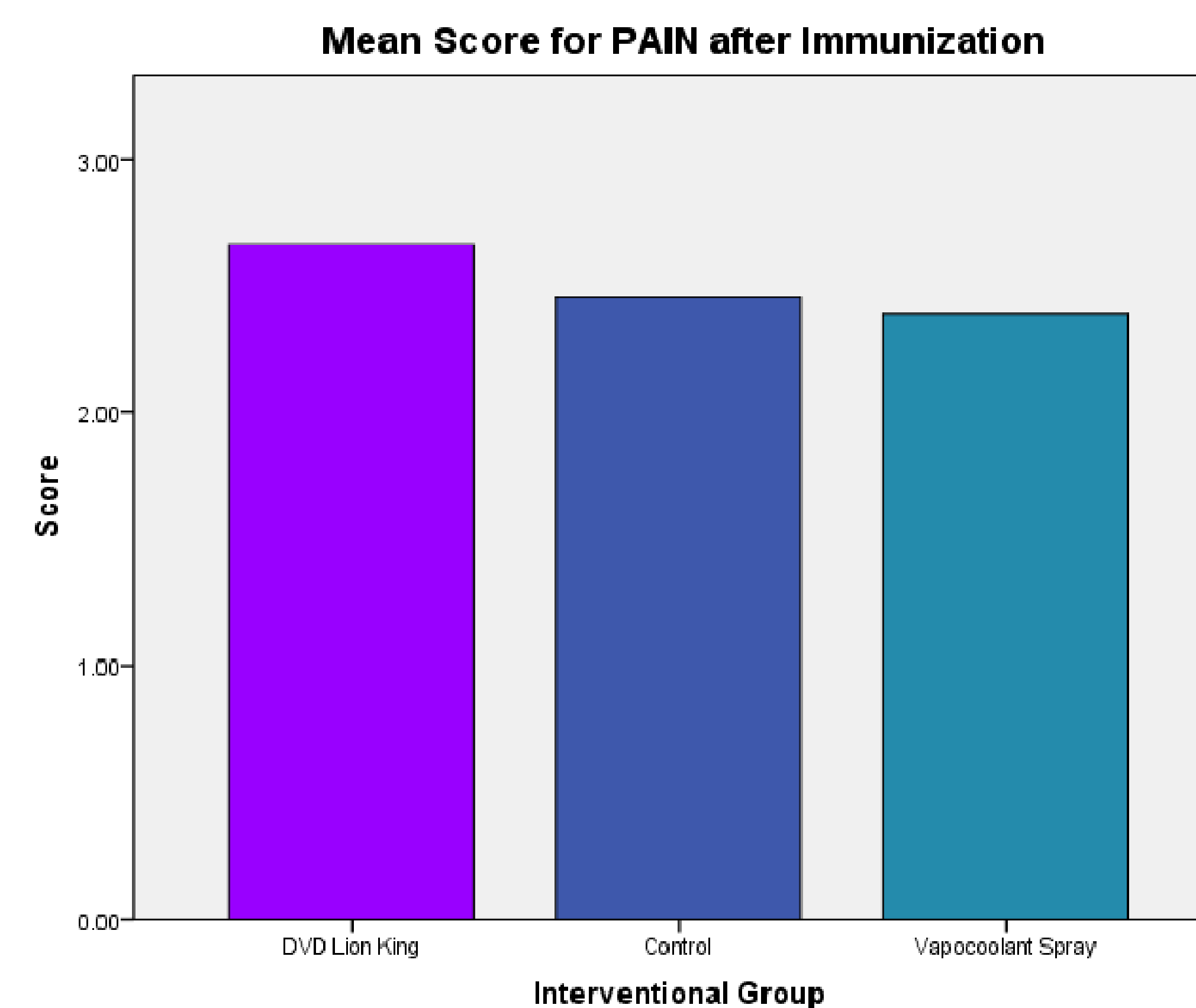
Results

- Statistical analysis of quantitative data showed no difference between the mean scores of pain in all three groups.
- Statistical analysis of quantitative data showed no difference between the mean scores of anxiety in all three groups.
- Qualitative data analysis revealed parents believed their child’s anxiety was less with distraction DVD (“The Lion King”) versus the two other options of vapocoolant spray or treatment as usual (control). Parents also preferred to choose the intervention their child received.

Quantitative

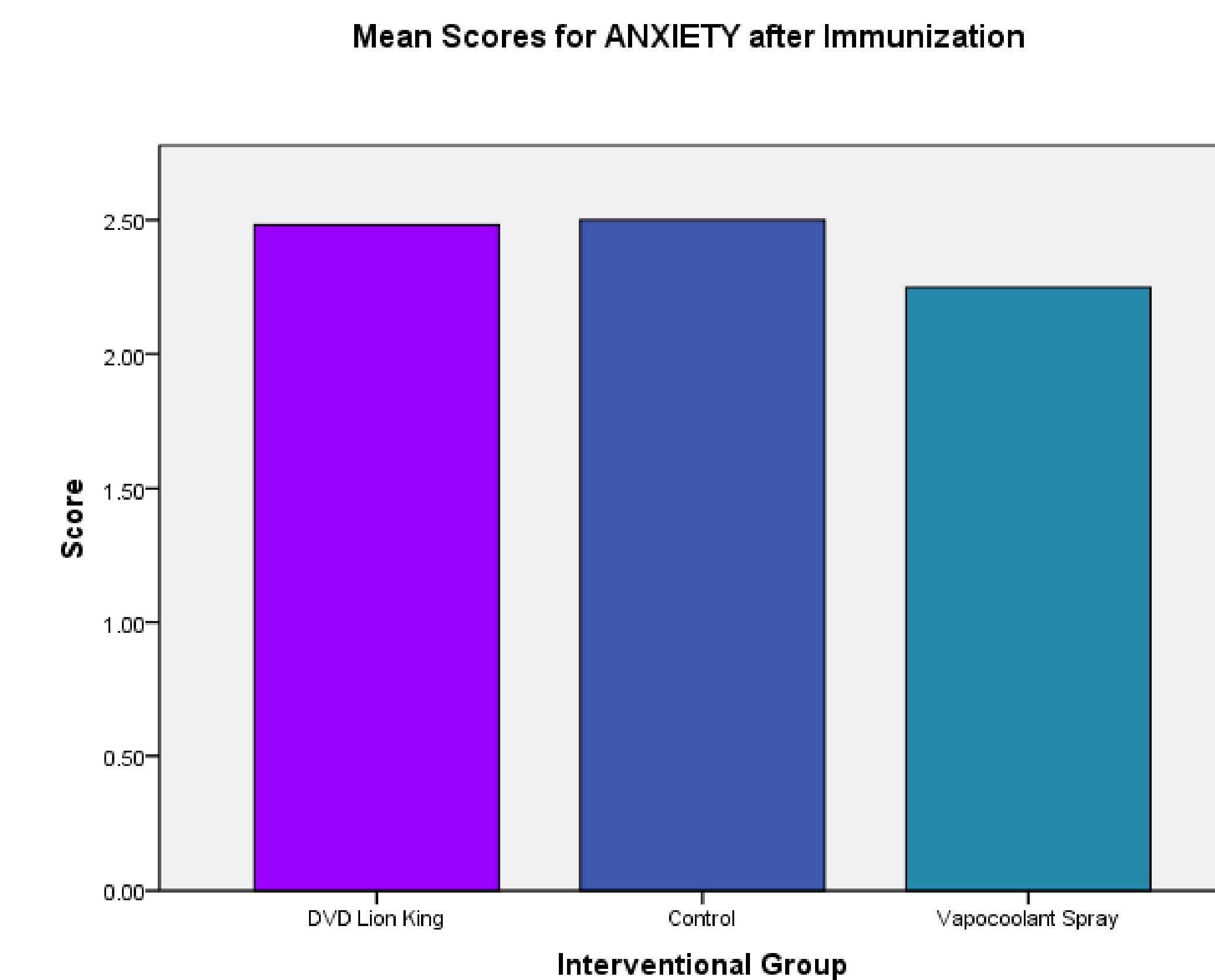
Regardless of treatment group, parents were asked to score perceived pain of their child after the immunization.

- Mean scores for pain by group:



Parents were also asked to score their child’s anxiety regarding immunization.

- Mean scores for anxiety by group:



Qualitative

Two themes were identified from the 41% of subjects who responded to an open-comment item. Parents believed their child’s anxiety was less with the distraction DVD (“The Lion King”) and parents preferred to choose the intervention for their child.

- Distraction DVD (“The Lion King”) Method Helpful Before and After Immunization

- 21% of parents reported the distraction method was helpful to reduce the child’s anxiety before and after the immunization, or the child’s pain immediately after the immunization.

“[The movie] helped distract her after the shots and she quit crying sooner.”

“[The movie] distracted him about the pain right after. Overall, I would say worth it.”

- Parental Choice Regarding Intervention

- 25% of parents reported they wanted their child assigned to a different intervention group because of their child’s unique personality or preferences.

“Distraction with video would work well for our child better than spray.”

“My son is not into movies so I think that is why it did not help.”

Even parents assigned to the control group reported they would have liked their child to receive an intervention.

“I would love to try a movie or spray next time.”

Implications for Practice

- Parents welcomed an intervention to relieve their child’s pain and/or anxiety during immunization.
- Parents preferred to choose the intervention they believe would be most appropriate for their child’s age and personality.