



Deconstructing the Poke: A Content Analysis of Children's Descriptions of Needle Insertion

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Introduction



Needle procedures are a common source of fear, distress, and pain in children. Up to 63% of children report being fearful of needles to some extent.



High levels of fear are associated with delaying or avoiding needles. With a COVID-19 vaccination for school-age children recently approved, needle fear is critical to address within this age range to promote vaccine uptake.



Existing Literature → Focus is heavily on pain management as a strategy to improve needle procedures. Other feelings and sensations that children experience during "the poke" that may contribute to fear have not yet been explored.

Objective

To obtain school-age children's direct accounts of what a needle insertion feels like to them

- **Hypothesis:** While many children will describe experiencing pain, a significant number of children will also report other unpleasant or neutral sensations.

Method & Analyses



124 children ($M_{age} = 7.75$, ages 5 – 12, 61.29% female) answered the open-ended question: "What does it feel like to have the needle put in your arm?"



Responses were analyzed using inductive content analysis. The data was initially "open coded", and 10 categories were created to capture the responses.



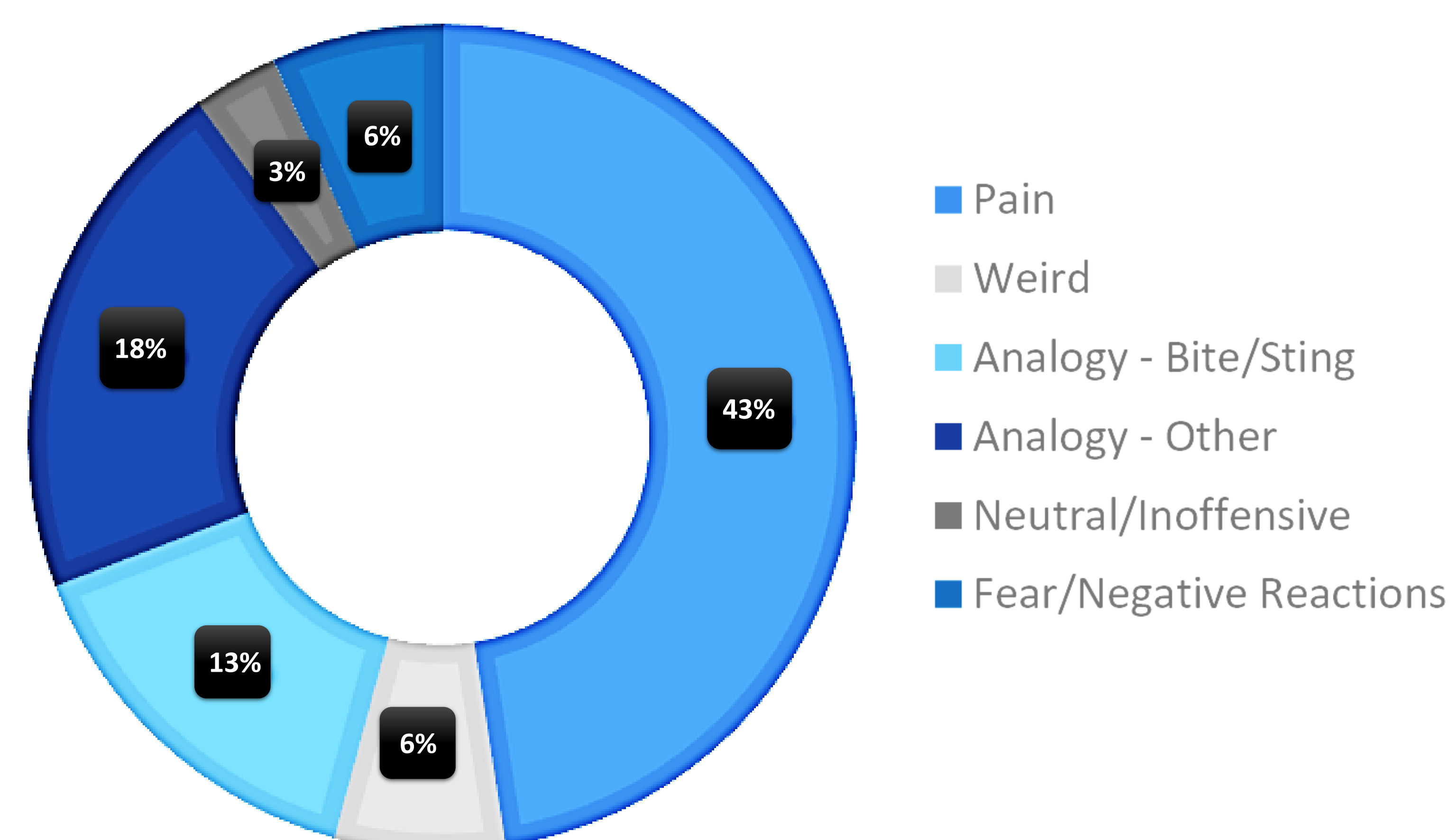
Two research assistants separately coded the data. Cohen's Kappa was used for intercoder reliability (ICR) ($M = 0.86$; Median = 0.89; range: 0.68 to 1.0).



Frequencies were calculated to capture the incidence at which specific categories emerged from the data.

Results

Select Coded Responses to "What does it feel like to have the needle put in your arm?"



Children's Descriptions of Needle Insertion

- **PAINFUL:** 42.9% of children referenced pain or hurt (e.g., "ouch", "was painful", "poke").
- **ANALOGY – BITE/STING:** 13.5% used an animal bite or sting to describe needle insertion. (e.g., "mosquito bite")
- **ANALOGY – Other:** 18% used analogies other than animal bites/stings (e.g., "like scissors", "like a burn").
- **WEIRD:** 6% referenced odd sensations or feelings such as itching, tickling, or tingling (e.g., "funny")
- **FEAR/NEGATIVE:** 6% reported fearful or negative emotions/reactions (e.g., "scary", "cried", "worried")
- **NEUTRAL:** 3% described a neutral sensation or reaction (e.g., "felt like nothing", "okay").
- Other responses included feelings of disgust (<1%), not knowing how it felt (6.8%), no response (6.8%), and responses that did not fall into any category (7.5%).

Discussion & Conclusions



While pain is understandably the most commonly reported experience, children also referenced other sensations contributing to fear during needle insertion.



The use of brief analogies (e.g., feels like a mosquito bite) may be a useful method for communicating with school-age children about needle insertion.



Future research should focus on addressing fear of sensations that children feel beyond pain.

Select References

Deacon & Abramowitz, J. (2006); Elo & Kyngas, (2008), McMurtry et al., (2015); Noel et al., (2012); Schechter et al., (2007), Taddio et al., (2012); Taddio et al., (2015)