

# Reframe the pain: Reducing needle anxiety in children

August 11 2022

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Tears, tantrums, and distress—when it comes to needles, many children struggle with anxiety. But with vaccinations becoming more regular,

finding ways to help reduce needle-related fear and pain is high on the agenda.

Now, new research from the University of South Australia shows that [children's](#) vaccination and needle fear can be lessened when nurses spend additional time supporting children in the vaccination process.

Working with children aged 8-12 years, the preliminary study found that two new nurse-led techniques show promise in reducing needle fear in primary-aged children:

- Divided Attention—where a child's attention and expectations are drawn away from the needle.
- Positive Memory Reframing—where a child's exaggerations about the [distress](#) and discomfort of [needles](#) are redressed through discussion about the positive elements of the experience so that the form more realistic memories of the event.

Lead researcher, UniSA's Dr. Felicity Braithwaite, says helping children reduce [fear](#) and distress around vaccinations is a critical research priority given the current COVID-19 pandemic.

"For many children, undergoing a [needle](#) procedure can be painful and distressing," Dr. Braithwaite says.

"Negative experiences of [vaccinations](#) in childhood can often lead to medical avoidance and [vaccine](#) hesitancy into adulthood, which can have devastating consequences when it comes to outbreaks of preventable diseases."

"By investing more time into techniques to help children manage their fears about needles, we hope to change these outcomes and deliver better health outcomes for the next generation."

The study involved 41 children and their parents, with participants randomly allocated to one of four groups—usual care, divided attention, positive memory reframing, or a combination of the latter two interventions. Clinical outcomes were assessed at baseline, immediately post-vaccination and at two-weeks post-vaccination.

The Divided Attention technique involved a one-two minute distraction game where a nurse tapped the child's arm above and below the vaccination spot in a random order, with the child focusing their [attention](#) on guessing which spot was touched each time. This game takes advantage of the potential analgesic effects of distraction.

The Positive Memory Reframing technique involved talking to children about a past injection and emphasizing positive aspects, such as how brave the child was and praising specific strategies they used to reduce their own distress, for example, deep breathing and looking away. The aim is to foster a sense of self-efficacy to help children better cope.

Both strategies were tested in non-clinical settings (such as schools) to maximize the potential of broad vaccination programs that deliver minimal distress for children.

The research was published in the *European Journal of Pain*.

**More information:** Felicity A. Braithwaite et al, Reframe the pain: Divided attention and positive memory reframing to reduce needle pain and distress in children—A feasibility randomized controlled trial, *European Journal of Pain* (2022). [DOI: 10.1002/ejp.1992](https://doi.org/10.1002/ejp.1992)

Provided by University of South Australia

Citation: Reframe the pain: Reducing needle anxiety in children (2022, August 11) retrieved 26 April 2024 from

<https://medicalxpress.com/news/2022-08-reframe-pain-needle-anxiety-children.html>

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