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CLIN PEDIATR published online 20 April 2012

DOI: 10.1177/0009922812441673

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Clinical Pediatrics
XX(X) 1–2
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http://cpj.sagepub.com


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Introduction

At present, per recommendation of the Permanent Vaccination Commission (Impfempfehlungen der Ständigen Impfkommision, STIKO) Germany,¹ children are vaccinated approximately 20 times with different vaccines—annually flu shots not included—by the time they are 18 years old. Injections are the most unpopular devices/processes among children² and are often the cause of anxiety and fear.³ Furthermore, these lead to negative doctor–child relationship. However, by employing a few simple strategies children can be easily vaccinated. In regular pediatric practice, because of time constraints, pediatricians tend to vaccinate as quickly as possible, neglecting the child’s needs. As a child has to be vaccinated many times over the years, the doctor needs the cooperation of the child, failing which each injection episode becomes a big drama.

Several studies have been conducted to determine which psychological interventions are the most effective for reducing vaccination-associated pain. Our aim, however, is to remind pediatricians and general practitioners how best they could vaccinate children with minimum effort and significantly less pain. It is important that we revise this topic more often as vaccinations are done frequently.

Methods

We searched the PubMed, BIOSIS, and ISI Web of Science databases on literature dealing with possible interventions for making the vaccination easier for children. We focused on psychological interventions, as these are cost saving and easier to implement in a practice.

Results

We found in the literature that anything done to divert the child’s attention helps significantly in reducing a child’s self-reported pain. This can be done by either

using the electronic media (videotaped cartoons, music, etc) or simply letting a nurse, who had participated in a 15-minute training program, distract the child with an age-appropriate toy, to draw the attention away from the pain.^{2,4,5} Another option involves breathing exercises, where children are asked to inhale and exhale deeply, possibly with the help of a whistle or bubbles.^{2,6,7} These kinds of breathing exercises not only meet the intended purpose of the intervention but are also very useful for distraction. Furthermore, data support using hypnosis⁴ as a method and informing children on the upcoming procedure.⁸

The use of suggestion as a method for reducing pain is ineffective, because as a precondition the patient needs to be relaxed, which is rather difficult for a child. Another method that involves parents is ineffective as they themselves are anxious, and they may not be able to fully divert the child’s attention.²

Conclusion

The use of very simple techniques can significantly help reduce vaccination-associated pain in children. However, these techniques are either often forgotten or simply not valued enough. Pediatricians and general practitioners should use these psychological interventions in their daily routine to ensure that children receive these evidence-based pain-relieving interventions.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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