



Symposiums: Pediatric Pain Management in Unique Populations and Settings

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We have no conflicts or disclosures.

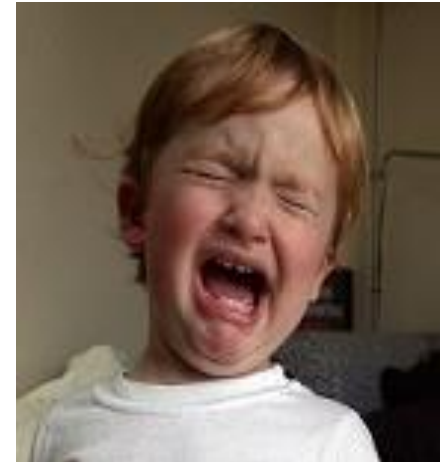
The purpose of this presentation is to discuss research outcomes and clinical implications for pain management in children at risk for untreated pain.



Procedures



Environment



Challenges

Predicting Child Risk for Distress with a Painful Procedure

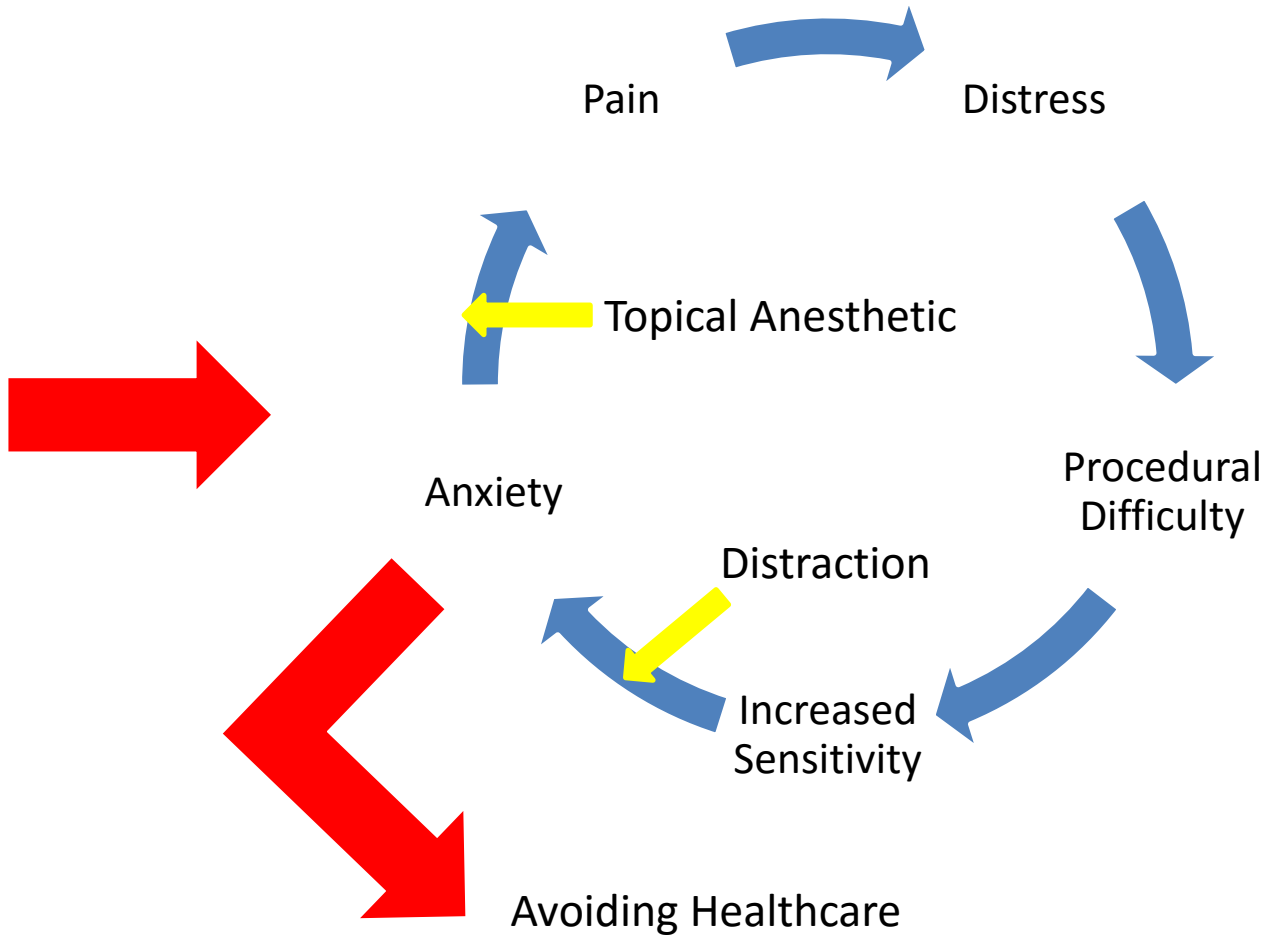


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 THE UNIVERSITY OF IOWA
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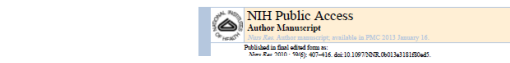
 UNIVERSITY OF IOWA
HOSPITALS & CLINICS
University of Iowa Health Care
*Department of Nursing Services
and Patient Care*

Most children experience painful medical procedures, such as needle sticks.



Our research team has over 20 years of experience with procedural pain in children.

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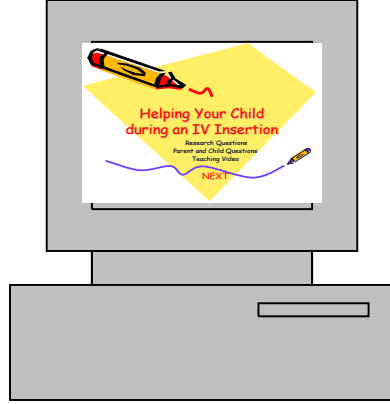
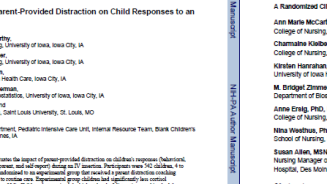
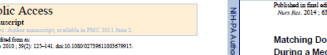
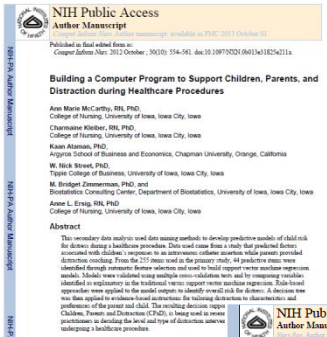
Cognitive Behavioral Interventions for Children During Painful Procedures: Research Challenges and Program Development

Ann Marie McCarthy, PhD, RN
 Valerie A. Cool, PhD
 Kirsten Hanrahan, MA, RN

The purpose of this report is to describe the program designed to introduce the use of cognitive behavioral interventions to pediatric patients and their parents and to describe the program's development, implementation, and evaluation. The program was designed to address the research challenges associated with the implementation of cognitive behavioral interventions in the pediatric setting. The program was designed to address the research challenges associated with the implementation of cognitive behavioral interventions in the pediatric setting. The program was designed to address the research challenges associated with the implementation of cognitive behavioral interventions in the pediatric setting.

DIAGNOSTIC AND TREATMENT procedures for children with cancer are often invasive and painful. As the survival rates of children with cancer have increased (National Cancer Institute, 1988), there has been a parallel increase in awareness of the needs of these children and their families during painful procedures. In the early 1980s, a Consensus Conference on the Management of Pain in Childhood Cancer (Chamberlain, Altman, & Neuman, 1980) and the Agency for Health Care Policy and Research (AHCPR) (Aronn, Pain Management Guidelines Panel, 1992) recommended that pediatric cancer centers develop pain management programs that include the use of nonpharmacological interventions, which had been found to be effective in reducing procedural pain and anxiety. As a first step in program development at the Long Memorial Cancer Hospital, a national cancer care center, we were offered by pediatric oncology nurses McCarthy, Cool, Peterson, & Brown (1998), the skills of their families indicated that while some centers offered some cognitive behavioral interventions, only about half of the centers routinely provided interventions such as distraction and mental rehearsal.

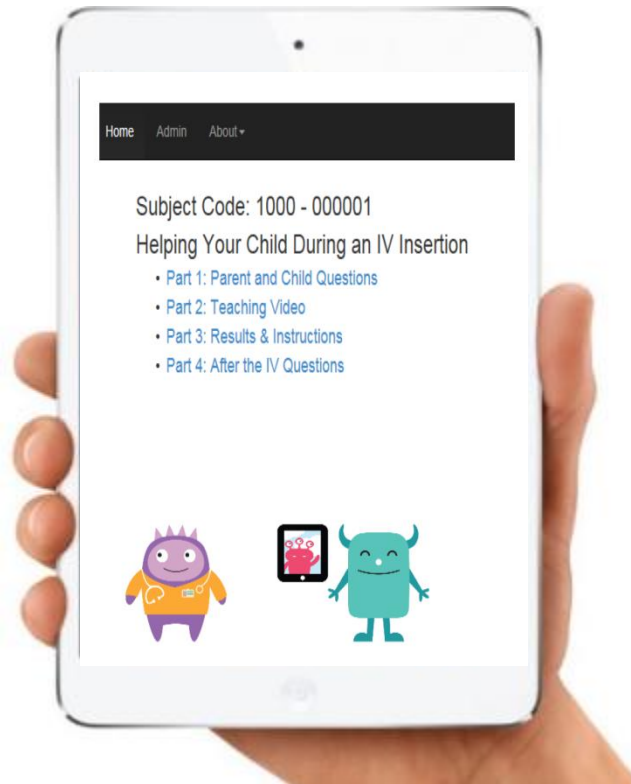
Following the success of the intervention described in a program that incorporates cognitive behavioral interventions into the routine care of children with cancer during painful procedures, in this report, the implementation of the program and the challenges associated with the implementation of cognitive behavioral interventions in the pediatric setting are discussed. The program was designed to address the research challenges associated with the implementation of cognitive behavioral interventions in the pediatric setting. The program was designed to address the research challenges associated with the implementation of cognitive behavioral interventions in the pediatric setting.



Vision: To help healthcare professionals, parents, and children by providing research based tools that help reduce the distress experienced during painful procedures.

C-PaD matches up a child's risk for distress and resources to help with distraction.

Children- Parents and Distraction



Feasibility study:

Step 1: Build it

Step 2: Test it in practice

C-PaD uses predictive modeling and decision support to help parents and providers.

Parents

Parent Questions

Video Teaching Distraction

Predicted child's risk for distress

Individualized tips

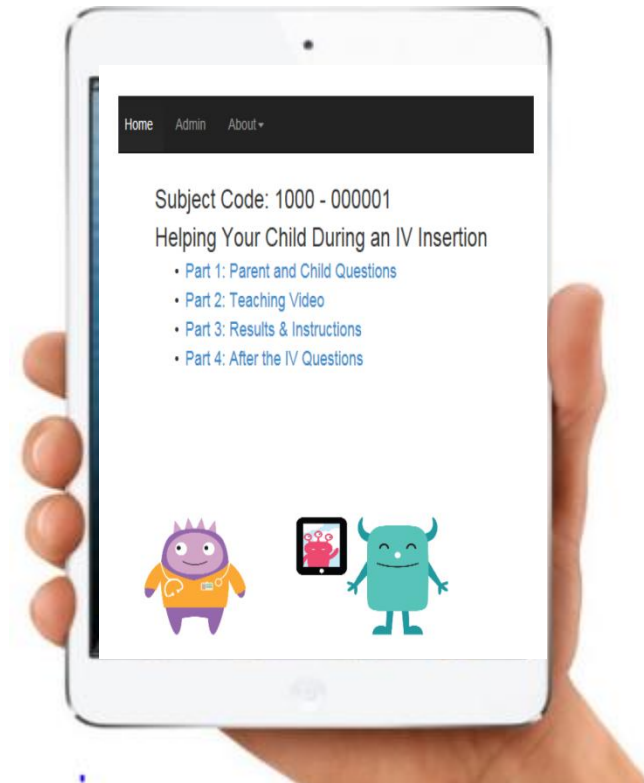
Links to book and games

Healthcare Providers (HCP)

Predicted child's risk for distress

Child distress profile

Quick tips for healthcare provider





1) What is your relationship to the child? (Person completing this form)

2) Child's ethnicity

3) Child's race

Orange 3G

10:54AM

67%

Convert Select

YouTube

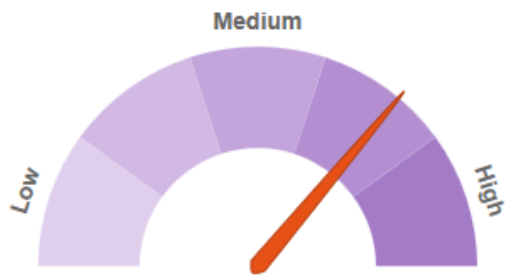
Helping your child during a medical procedure



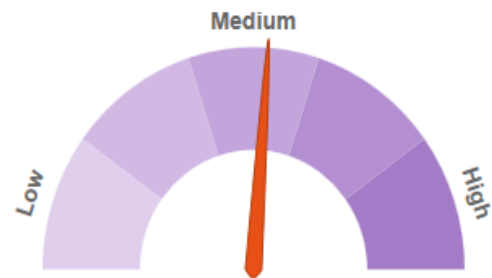
Distracting children during medical procedures, Part 3: Tips for parents

Risk for Distress Behavior

Child Risk for Distress Behavior with **Parent** Distraction



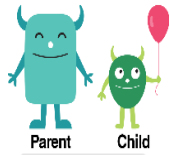
Child Risk for Distress Behavior with **Trained Health Care Provider** Distraction



Who will provide distraction?



Send



Parent

Child

Video Games

Books and Puzzles

Breathing/Relaxation/Music



App Store

Angry Birds 2

The survival of the Angry Birds is at stake. Distract out revenge on the greedy pigs who stole their eggs. Use the unique powers of each bird to destroy the pigs' defenses.



App Store

Balloonimals

Blow into the microphone to blow up the balloon and then shake the phone to see a balloonimal come to life before your eyes



App Store

Bubbles

Toddlers can touch the bubbles to make them pop on the screen



App Store

Cut the rope 2 free

Cut the rope to feed candy to little monster



App Store

Easy Bake Oven

Decorate cupcakes and pretend to eat

Save & Exit

Back

Next

The purpose of this study was to test the functionality and feasibility of using the C-PaD in practice.

What are parents' and HCP experiences with using C-PaD?



- 20 parents of children ages 4-10 having a needle stick
- Healthcare providers in the Emergency Department or phlebotomy lab

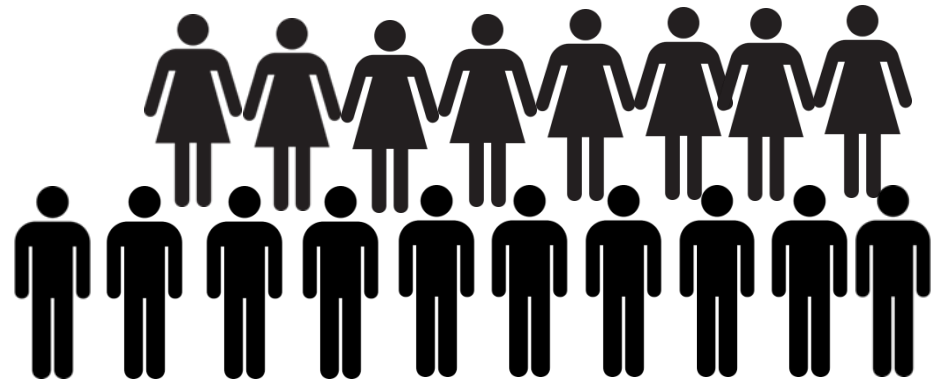


Most children had a needle stick for labs.

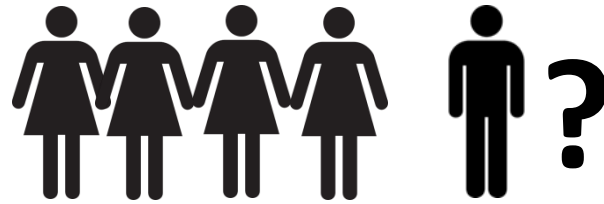


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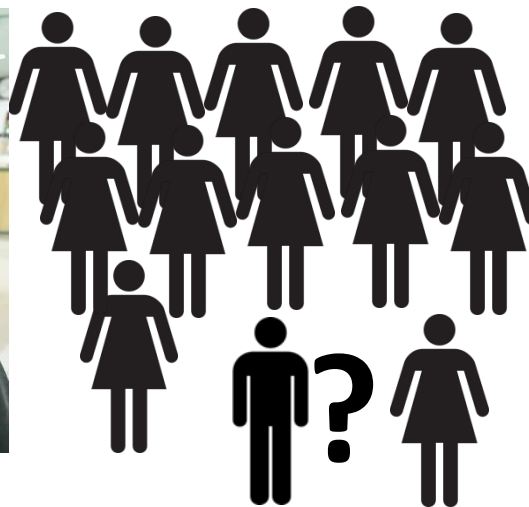
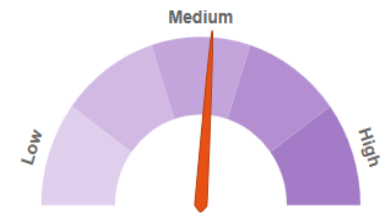
Mean years of age
Range 4-10



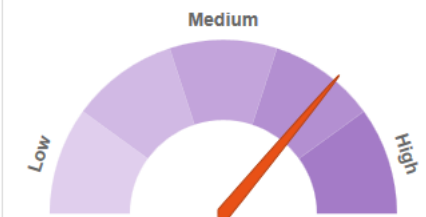
Twenty parents of children having a needle stick participated in the study.



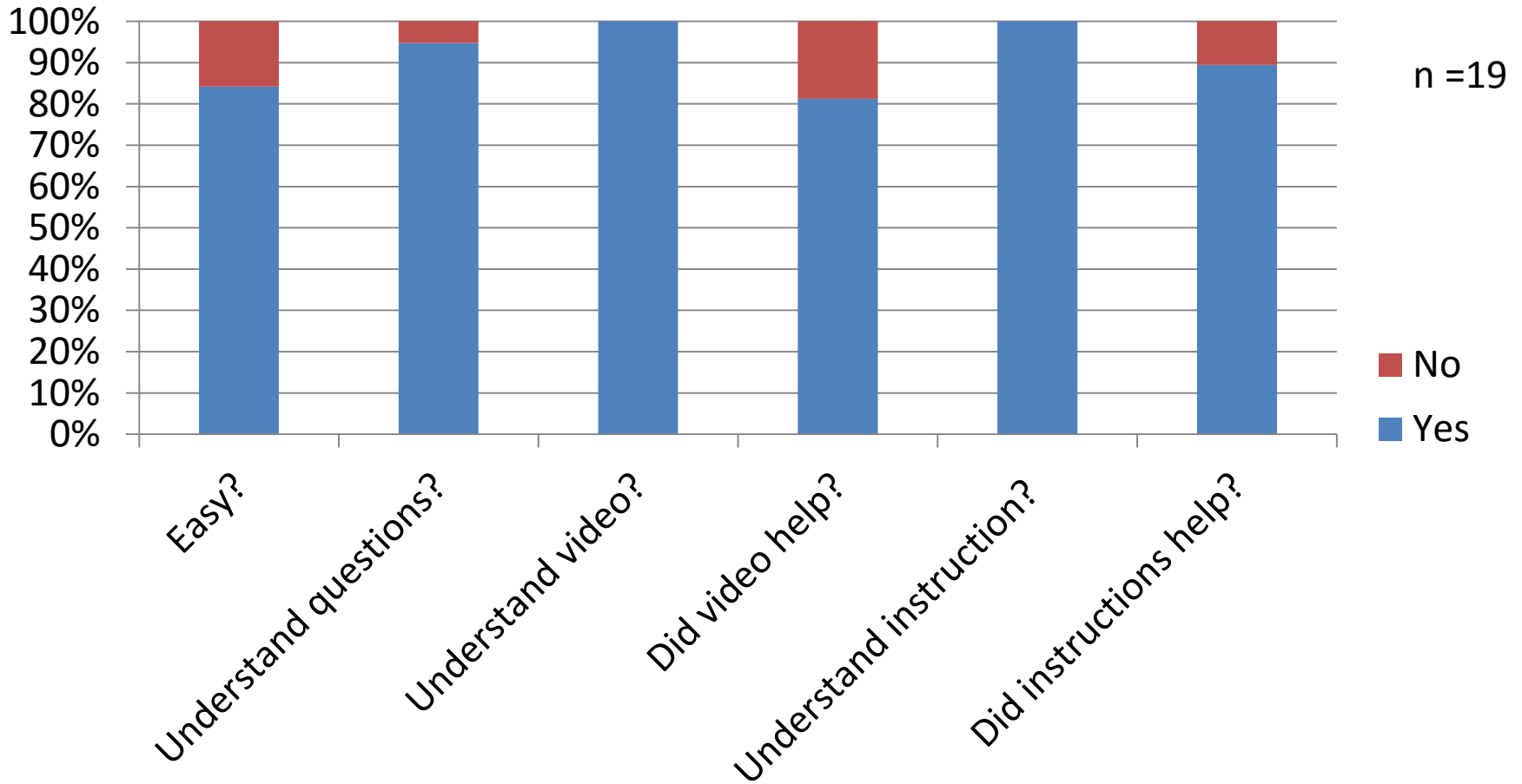
Child Risk for Distress Behavior with **Trained Health Care Provider** Distraction



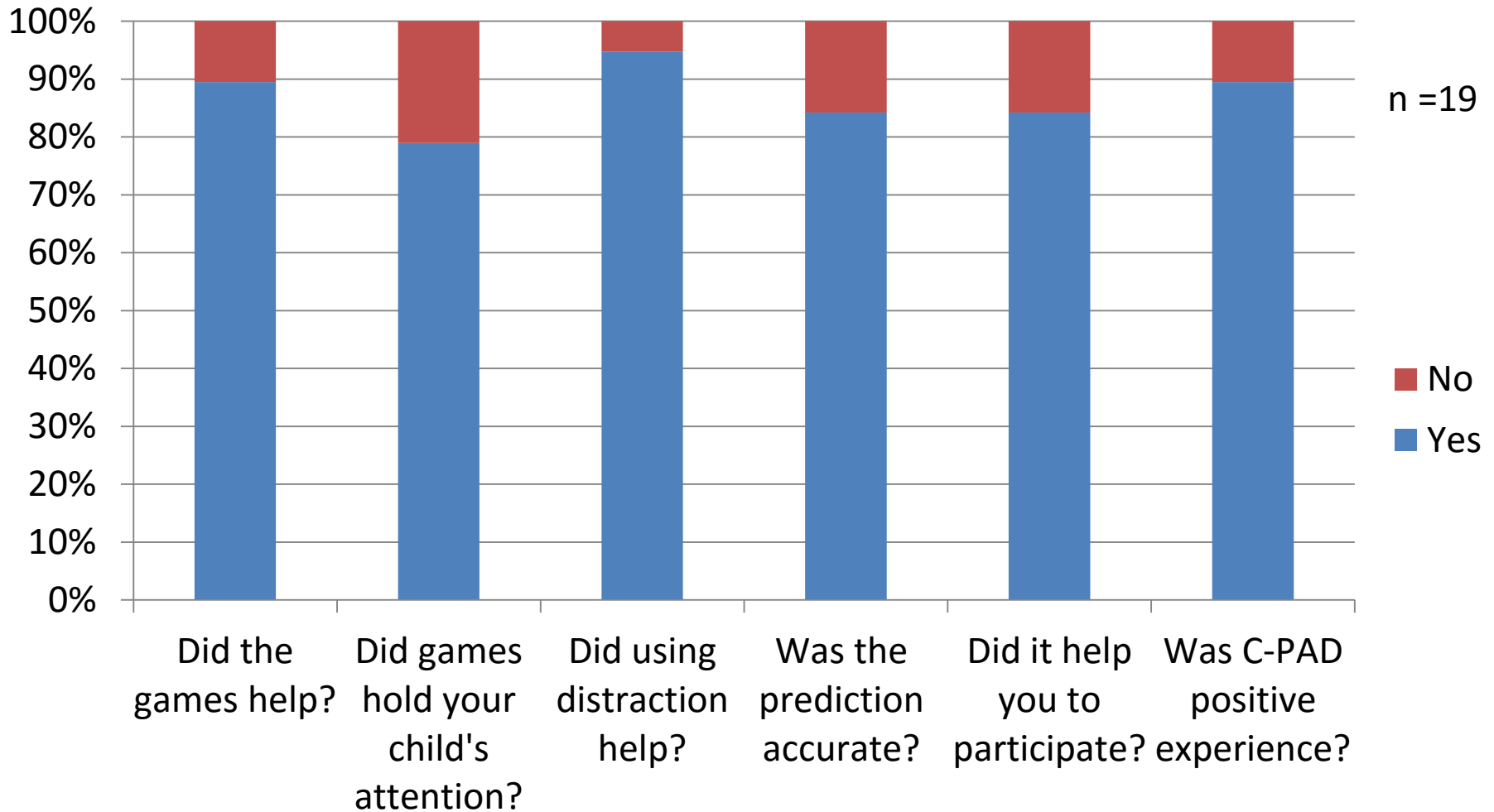
Child Risk for Distress Behavior with **Parent** Distraction



Parents thought C-PaD was easy to use, they understood it, and thought it helped.



Parents thought distraction helped and the C-PaD experience was positive.



Parents recognize distraction works, but is impacted by other factors.

Previous experiences are mixed, and they matter.

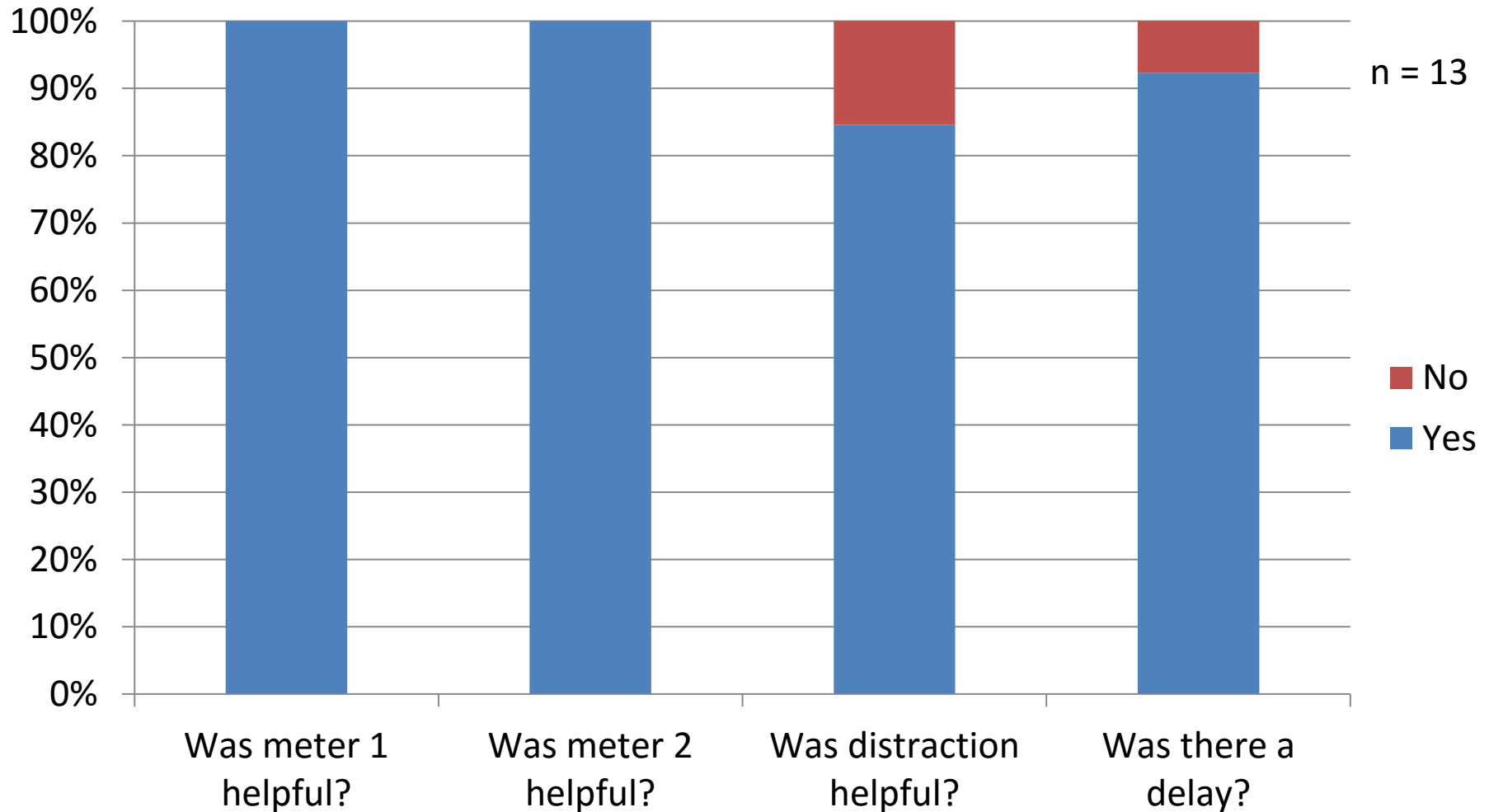
HCP may interfere with distraction.

Distraction Works!

Some children were not distractable.

Trained professional free parents up for other support.

HCP thought distraction and meters helpful, but the delay in workflow was meaningful.



HCP see the benefits of risk assessment and distraction, and adjust their workflow.

It helped to know the child's risk for distress.

Needle stick goes better with distraction.

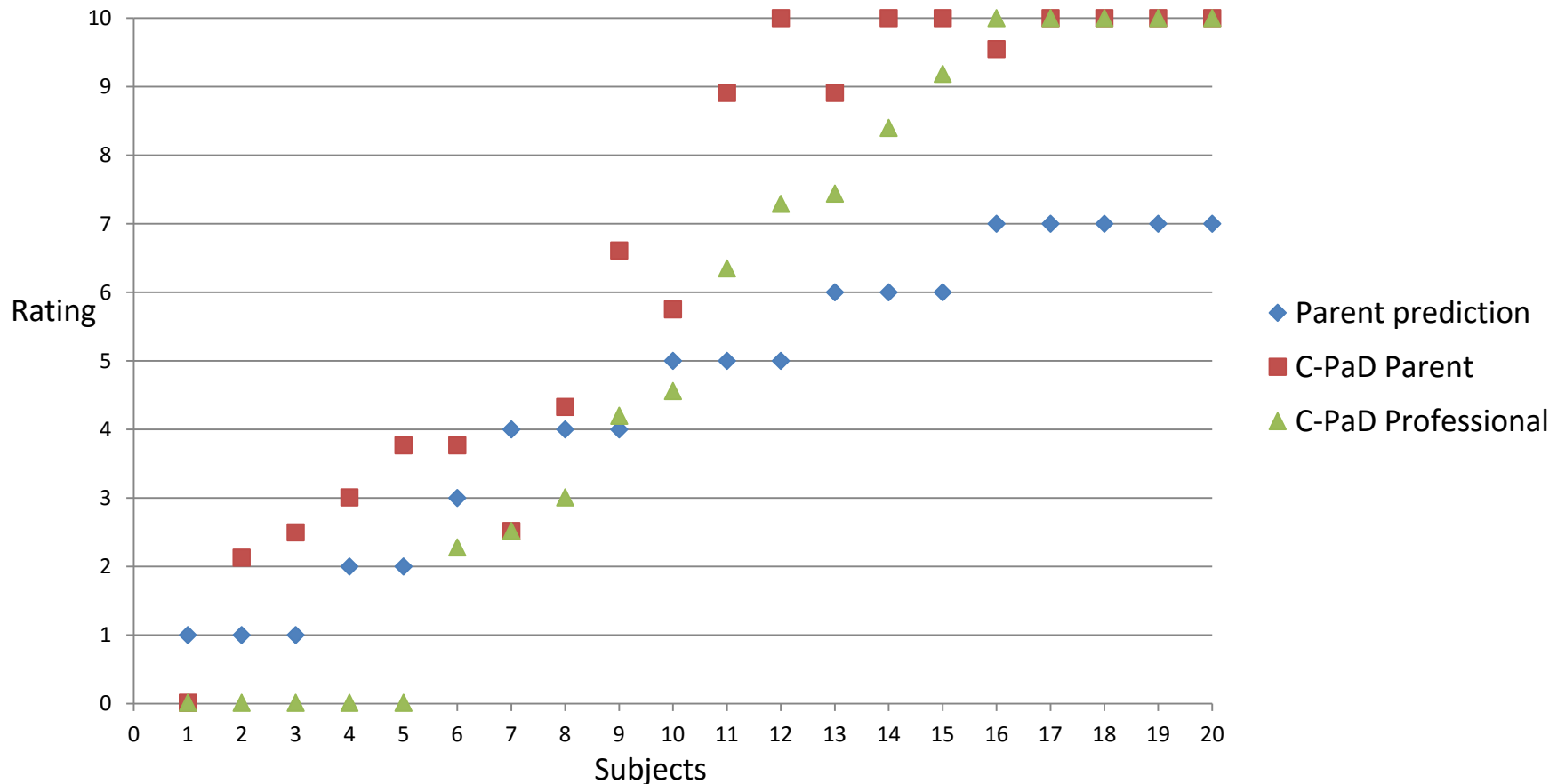
Distraction Works!

It depends....

We want a tablet!

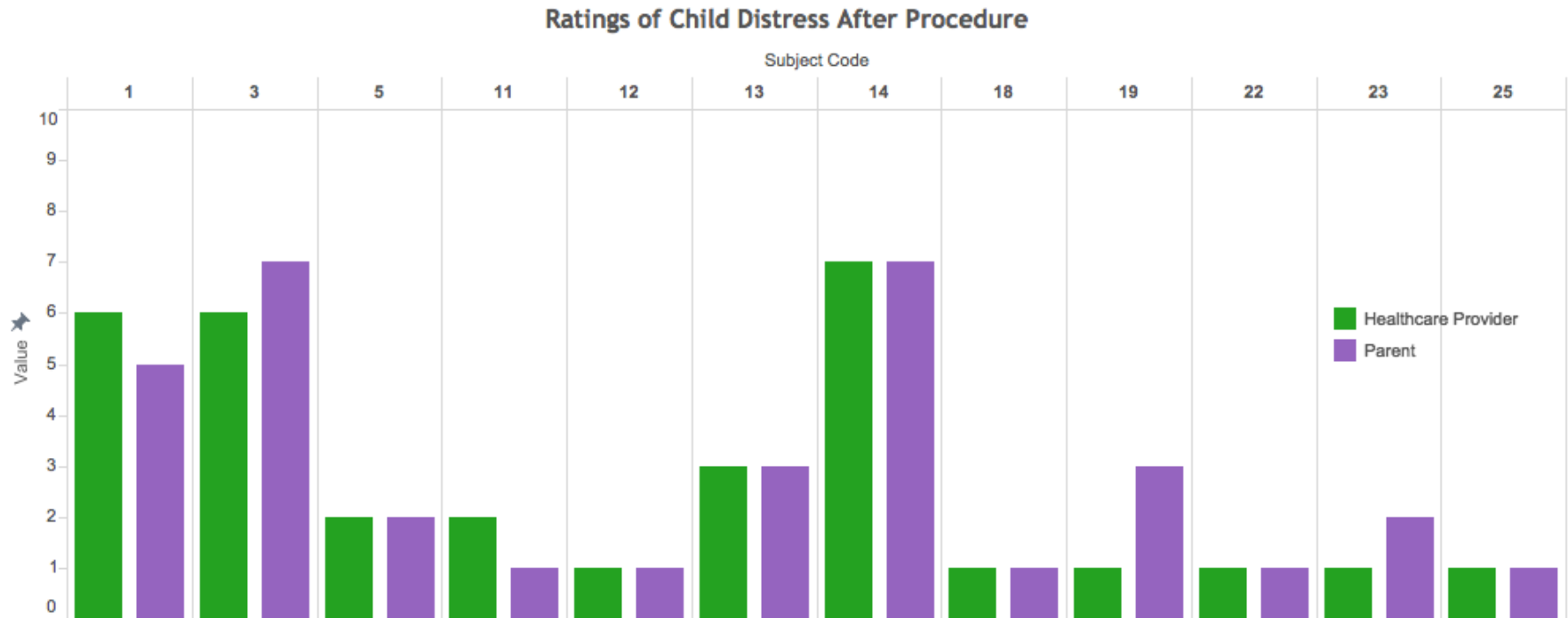
We can adjust the workflow

Parent prediction of distress and C-PaD predictions correlate.



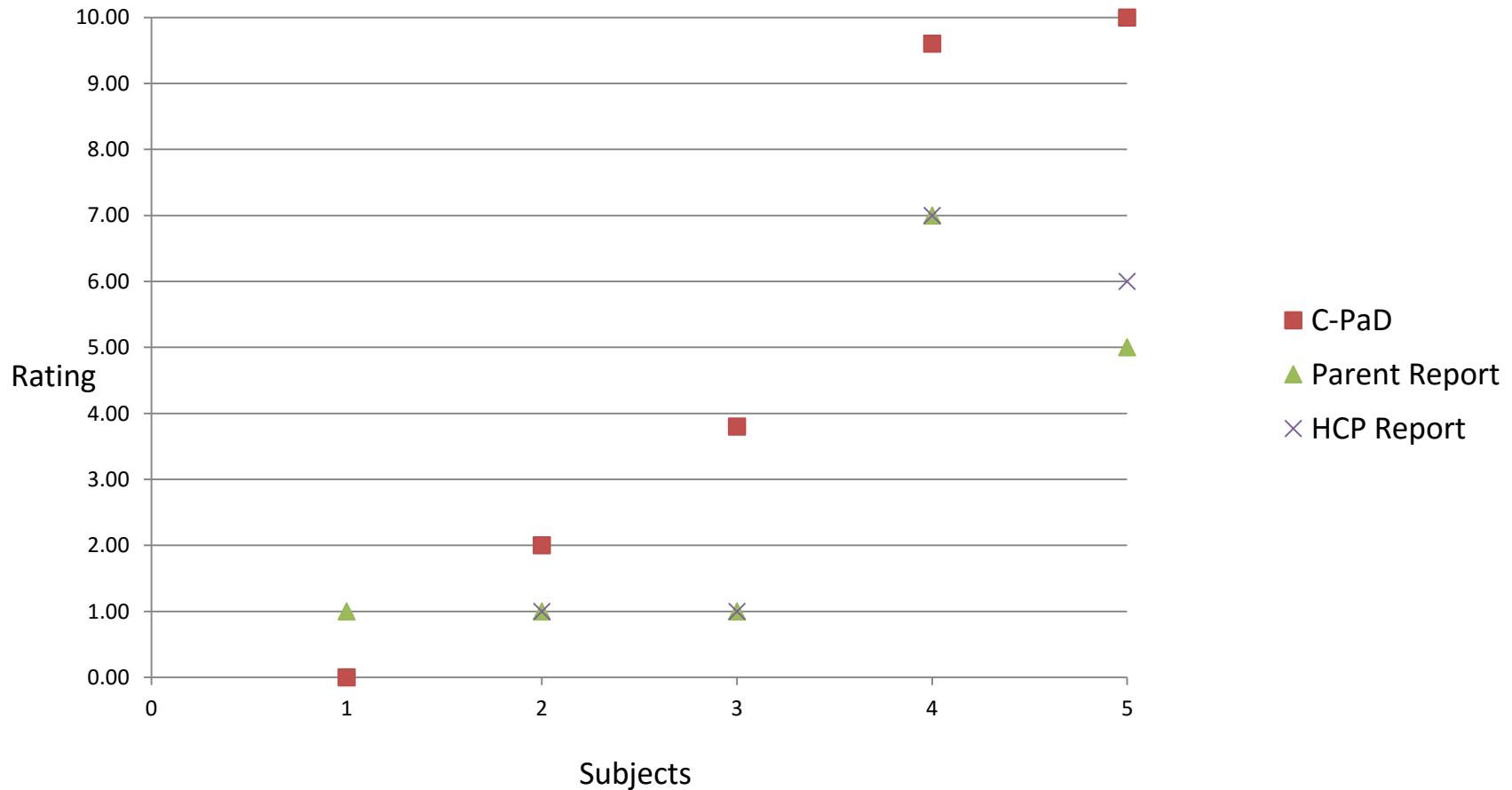
Parent prediction and C-PaD with parent or professional distraction ($r = 0.92, 0.97$)

Parent and HCP report of distress were consistent.



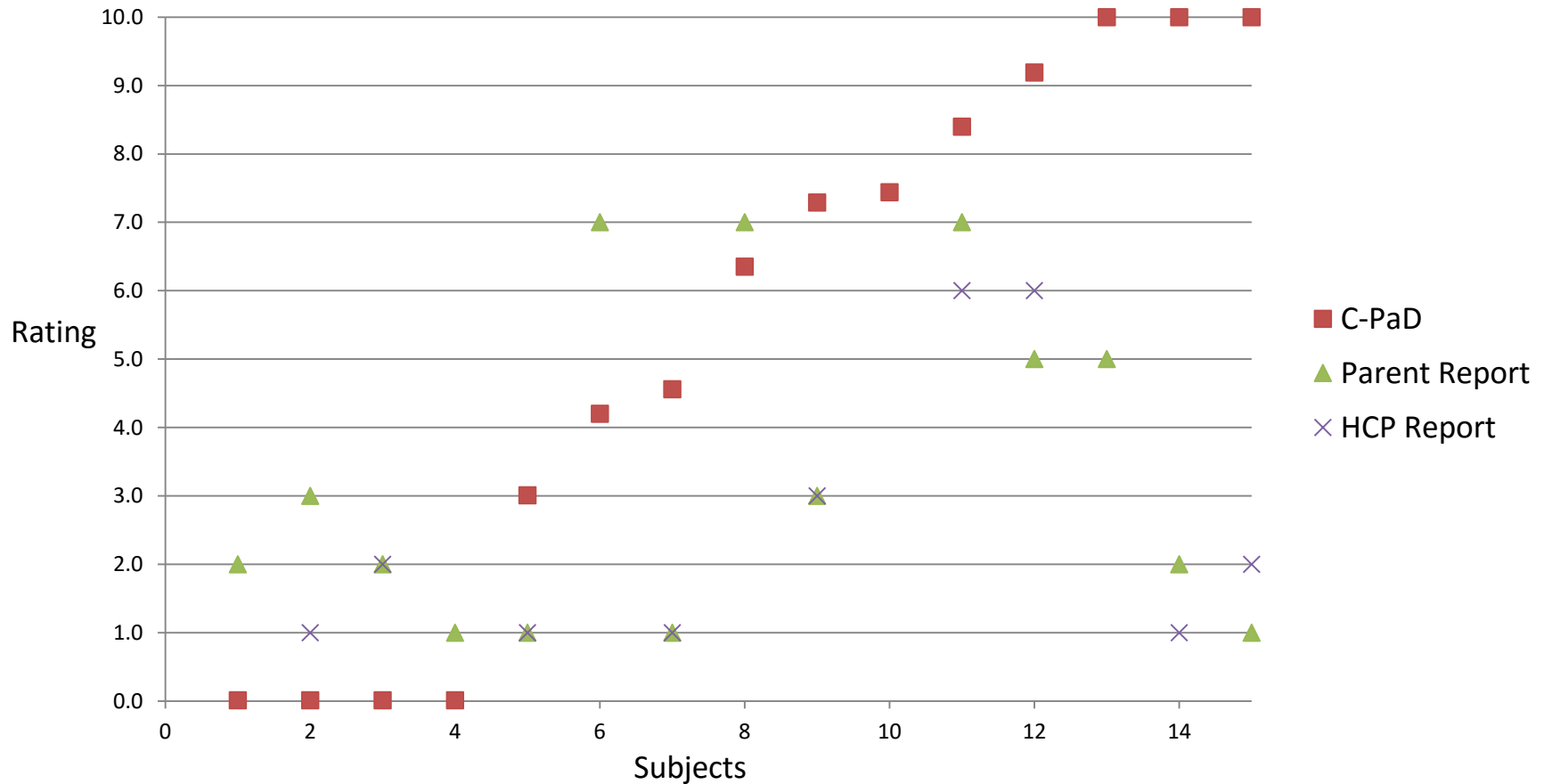
n = 12, Pearson's r = 0.93

When parent distraction provided, C-PaD predicted risk and reported distress correlate.



C-PaD prediction for parent provided distraction with parent report and HCP report ($r = 0.91, 0.96, n = 5, 4$).

When professional distraction provided, C-PaD predicted risk and reported distress not related.



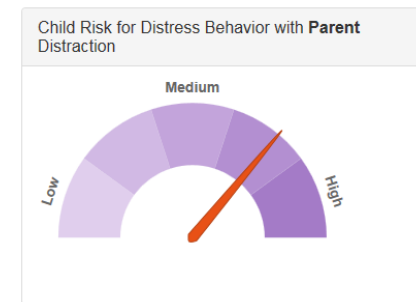
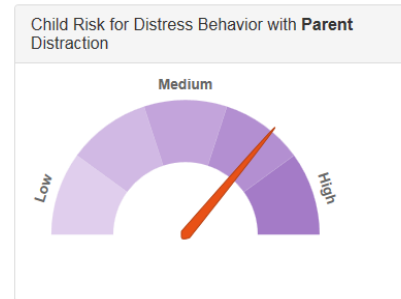
C-PaD prediction for professional provided distraction with parent report and HCP report ($r = 0.34, 0.46, n = 14, 9$).

Parent and HCP experienced C-PaD to be feasible and helpful for children having needle sticks.

Distraction works!



Knowing the child's risk for distress is helpful



Use of C-Pad in a real world clinical setting was feasible.

Parent app is ready for market.

Provider app needs further research.



**Watch for our website
and
Distraction in Action!**

Questions?

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ED staff
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Part 1: HCP as distraction coaches
<https://www.youtube.com/watch?v=m7GG9fXSKbc>
Part 2: HCP including parents in distraction
https://www.youtube.com/watch?v=lcg_BDwL9Oc
Part 3: Teaching parents to use distraction
<https://www.youtube.com/watch?v=DYX4BinDEj4>

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