Family Beliefs and Interventions in Pediatric Pain Management

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KEYWORDS

- Acute and chronic pain • Parent factors • Cognitive-behavioral therapy
- Acceptance and commitment-based therapy

KEY POINTS

- Acute pain will cease once the ailment has been treated or the infliction of pain has concluded.
- Chronic pain describes pain that continues once the initial stimulus is no longer present.
- Parental factors that exacerbate pain include anxiety, catastrophizing, distress, and reassurance.
- Several different measures can be used to determine parent functioning, responses, and coping as they relate to pediatric pain.
- Evidence-based parent and family interventions exist for the treatment of pediatric pain.

OVERVIEW: NATURE OF THE PROBLEM

Pain is a significant public health concern and socioeconomic burden with costs estimated to be $635 billion per year in the United States alone.[1] Pain is distinguished as either acute or chronic (although some illness conditions, such as sickle cell, can result in complex, acute, or chronic pain). This article reviews established research regarding pediatric pain and focuses on the effects of interpersonal interactions, primarily those from parents, on its expression.

This article was supported by a Boston Children's Hospital Career Development Fellowship Award to C.B. Sieberg, the Sara Page Mayo Endowment for Pediatric Pain Research and Treatment, and the Department of Anesthesiology, Perioperative and Pain Medicine at Boston Children's Hospital.

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Child Adolesc Psychiatric Clin N Am 24 (2015) 631–645
http://dx.doi.org/10.1016/j.chc.2015.02.006 **childpsych.theclinics.com**
1056-4993/15/$ – see front matter

Abbreviations

ACT	Acceptance and commitment therapy
ADHD	Attention-deficit/hyperactivity disorder
CBT	Cognitive-behavioral therapy
POTS	Postural orthostatic tachycardia syndrome
RAP	Recurrent abdominal pain

Acute Versus Chronic Pain

The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."[2] Pain is classified into acute and chronic pain and is a highly subjective experience influenced by a multitude of factors. Acute pain is the umbrella term to describe the immediate onset of pain resulting from a medical event, including illness, injury, or a medical procedure. The duration of acute pain can vary, lasting from a few seconds (eg, immunization) to a few months (eg, broken bone or surgery). The primary difference between acute and chronic pain is that acute pain will cease once the ailment has been treated or the infliction of pain has concluded.[3] Managing pediatric acute pain is critical in offsetting the risk of potential development of chronic pain.

Everyone experiences acute pain. Chronic pain affects approximately 15% to 25% of children.[4,5] Much of the experimental research has been directed at acute pain. While clinical descriptions of some pain syndromes distinguish between organic and nonorganic pain, the American Pain Society maintains that this mind-body dualism conceptualization should be abandoned because all pain is associated with neurosensory changes. Even for children with an organic illness, like juvenile arthritis, the severity of pain can only be partly attributed to disease activity.[6] Musculoskeletal pain, abdominal pain, and headache are among the most common chronic pain complaints, and all are more prevalent in girls compared with boys.[7] The authors discuss here experimental research done with acute pain while realizing that chronic pain has the most damaging impact on the lives of children and families and can result in functional disability, depression, fear of pain, and pain catastrophizing.[8–12]

Summarizing research with parents and pediatric acute pain

Researchers have examined the role of parents and children in acute pain.[13–16] Many of the data cited here were generated in studies using either natural events commonly associated with pain, such as immunizations or scheduled medical procedures, or to experimental situations designed for the purpose.

Factors related to children in these studies include child distress, anxiety, and catastrophizing about the procedure.[14,17–19] Catastrophizing refers to having a response out of the range of usual expectation given the severity of the pain-generating event (making too much out of the situation). Parent factors include the parent's level of anxiety, catastrophizing, degree of reassurance given to the child, or parental distress. Family factors examined for outcomes for pediatric pain patients include aggregation of family pain complaints, parenting style, parental responses to child pain behavior, parent-child interaction, family environment, and overall family communication and functioning.[20–24]

Here are some results from these studies:

- Studies of acute pain have demonstrated that children require more restraints and express high levels of fear when parents provide reassurance during immunizations.[23,24]