



Good Clinical Pain Practice for Pediatric Procedure Pain: Target Considerations

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ABSTRACT The objective of this review is to integrate current knowledge of pediatric procedure pain to develop a conceptual framework of good, clinical pediatric pain practice that can be used to improve the processes and outcomes of the clinical management of pediatric procedure pain in dentistry. This argues that targeting behavior confounds the assessment-intervention dynamic of pain management.

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Good, clinical pain practice is a concept in pediatric dentistry that has traditionally operated in association with assessment-intervention dynamics that target behavior. Previously, this was known as behavior management but is now being elaborated as behavior guidance.¹⁻³ The retooling of behavior management as behavior guidance has grown out of dissatisfaction that has taken root regarding the lack of adequate scientific justification for many of the intervention strategies associated with behavior management.^{4,5}

Historically, authors and conference participants have had difficulty in confronting the task of defining what constitutes good, clinical pain practice and integrating that concept with behavior

management and its successor, behavior guidance.^{3,6-11} In a 2004 report of the proceedings of a conference especially convened by the American Academy of Pediatric Dentistry to discuss the rationale for behavior management techniques, pain is only mentioned once.⁹ Yet, most clinically observed behavior in the procedural setting is pain behavior, either affective or nociceptive-sensory. Nearly all periprocedural patient behaviors may be distilled into one or the other of these two subcategories. In this paradigm, willful behavior is viewed as a manifestation of affective pain behavior.^{12,13}

Willful Disobedience or Pain Behavior?

When dentists treating children target behavior in order to derive their strategies to intervene in patient movement, two

problems arise. First, the intervention strategies that are derived from targeting behavior (e.g., restraints) are not necessarily strategies that are successful in intervening in pain. Second, an etiologically ambiguous assessment target, such as behavior, exposes the pain assessment-intervention dynamic to manipulation by evaluator bias. Patient movement that interferes with treatment can be seen ambiguously either as pain behavior (this includes its affective manifestation of anxiety/fear and its accompanying constellation of pain avoidance stratagems) or as willful disobedience. Behavior management authors, writing at a time when the contextual meaning of clinical pain behavior was not well understood, never displayed much interest in exploring pain as an etiological source of negative behavior.

That negative behavior was the focus of dental researchers 25 years ago, as they attempted to develop a metric that would reliably quantify it.^{6,7,14} The specific type of behavior they sought to measure was termed “uncooperative,” “disruptive,” or “negative,” and occurred coincident with tissue trauma, that is, during restorative treatment. To do this, they rated the child’s cry, verbal protest, leg, hand, and torso movement.

Today, these same behaviors, occurring coincident with tissue trauma, are widely accepted as behavioral reports of pain. Most or all of these behaviors constitute the majority of the measurement for each of the nine different, behavioral scales of pain listed by McGrath.¹⁵ In one of the above cited studies, the authors reported that some of the children exhibited “general protest with no compliance” during procedures involving tissue trauma. The authors were silent on the behavior’s etiology and directed that an intervention of physical restraint would proceed from this observation.⁶ Today, this same

behavior would be interpreted as behavioral reports of pain. While restraints are a successful intervention in behavior, they are not an intervention in pain.

This example illustrates the great fault in the expositional elaboration of behavior management. That fault was its failure to meaningfully deliberate on the etiology of negative behavior and its tendency to adopt a default inclination to imply that patient movement during tissue trauma, or during a procedure with its potential, is an expression of

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willful disobedience — uncooperative behavior or misbehavior.^{6,8,16} The word “pain” rarely occurs in any of the behavior management articles cited in this paper and in the American Academy of Pediatric Dentistry’s final guideline on behavior management (2004-2005), the word “pain” is listed only three times.¹⁷ In the current AAPD elaboration of behavior guidance, the reluctance to integrate pain assessment into the behavior paradigm seems to have been partially perpetuated. The word “pain” is not a key term used in any of the Medline searches for source material and is still limited to three occasions in the completed text.¹⁸

Etiology of ‘Negative Behavior’

Much of the deliberation on the etiology of negative behavior has focused on the cultural changes in American society

that has led to permissive parenting styles. This trend has been blamed for an increase in the number of undisciplined, spoiled, or bratty children entering today’s dental practices.^{8,16,19,20} Casamassimo and Wilson in 2002 found that 85 percent of pediatric dentists surveyed believed that changing parenting styles had resulted in worse behavior for children in the dental operator.²¹ Recently, Law agreed that slack parenting has created an environment wherein “behavior management strategies that require the dentist to exercise authority (e.g., voice control) seem to be less effective than in previous eras.”²²

It is granted that the stressful context of modern parenting in the United States may be responsible for an increase in permissive parenting resulting in an undisciplined response to authority in today’s children.¹⁹ However, this undisciplined response manifesting in the dental operator is etiologically nothing more than an altered expression of affective pain behavior in children who have not been culturally conditioned to fear adult disciplinarian consequence. Occurring in the dental operator, this behavior typically has four solution sets. The clinician can increase their psychological interventions, their pharmacological interventions, or intervene strategically in the stimulus dimension by either reducing a procedure’s invasiveness or intervene entirely noninvasively. Restraints are not interventions in pain. Rather, they are interventions in movement. This may be the involuntary movement of palsy or tics or the voluntary (or reflexive) movement issuing from justified affective or nociceptive-sensory pain. The point here is that the road to the use of restraints goes through assessment-intervention dynamics that target pain not behavior.

The Authoritarian-Disciplinarian Management Style

What behavior management has, historically, been managing is pain behavior, in both its affective and nociceptive-sensory dimensions. Yet, many dentists treating children still seem to prefer viewing affective pain behavior as a problem of discipline. In a 2007 survey by Vargas and Nathan et al., a majority of pediatric dentists identified themselves as having adopted an authoritative-disciplinarian management style.²³ It is not clear what characterizes a disciplinarian management style since disciplinarian strategies for any perceived misbehavior is necessarily limited by the fact that dentists do not legally stand in loco parentis (in the place of the parent) as does a teacher.²⁴ Without this legal standing, negative reinforcement is not a disciplinarian option.

More likely the disciplinarian mantle signifies that the clinician is philosophically aligned with the active use of the physical domain (restraints) or aversive domain (e.g., voice control, hand over mouth) of those management techniques that target a child's behavior.⁸ Since a significant percentage of dentists treating children do not believe in the authenticity of children's pain reports during conditions of invasive treatment, it is easy to see how dentists who adopt a disciplinarian approach may choose to interpret uncooperative behavior as misbehavior.^{2,5,8} This likely has some correlative contribution to the Vargas, Nathan, et al. finding that 47 percent of pediatric dentists considered sedation successful if treatment objectives were obtained despite the need to persistently restrain the patient.²³ This statistic may owe a percentage of its accrual to an educational deficit that either overestimates the risk of general anesthesia or postulates that the emotion of pain is a dissectible, false contribution. But it

is also likely that a portion of its genesis is an attitudinal barrier, one that refuses to accept (or is unaware) that misbehavior manifesting in an invasive procedural setting is an expression of nociceptive-sensory pain. If a child grimaces, moves their legs or torso, cries, or is to some degree inconsolable during invasive procedures, then we must accept that behavior as an expression of pain behavior.^{15,26,27}

By failing to specifically target pain and failing to unambiguously integrate pain assessment into its conceptual

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scheme, behavior-based assessment-intervention dynamics hobbles the operation of good, clinical pain practice. Good, clinical pediatric pain practice requires that the assessment-intervention dynamics of dentists treating children be oriented toward pain, not behavior. Therefore, when pain is a possibility, it should be measured. This will allow clinicians to develop and improve upon intervention strategies that are effective in controlling pain in all of its dimensions. Measuring pain and believing children's behavioral or self-reports of pain will neutralize the effect of clinician deficits on the assessment-intervention dynamic.

Summary

Behavior is an ambiguous assessment target that confounds the operation of assessment-intervention dynamics that target pain. The etiological ambiguity of

children's uncooperative behavior exposes the pain assessment-intervention dynamic to evaluator tendencies that deny the authenticity of children's pain reports and underestimate pain. Most behaviors occurring in the procedural setting are actually forms of pain behavior. Therefore, when pain is a possibility, it should be measured. Establishing this as a principle of good, clinical pain practice will assist in displacing the confounding tradition of targeting children's behavior in dentistry. ■■■■

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