In recent years, policy makers and clinicians across the country have been confronted with unprecedented rates of opioid-related adverse events, overdose, and death in our communities. Children, adolescents, and young adults are particularly vulnerable to such outcomes, as evidenced by a dramatic increase in the numbers of hospitalizations and accidental deaths. \(^1\) Recent efforts aimed at reducing adverse opioid outcomes have included enhanced regulation and monitoring of opioid prescribing, development and promotion of tamper-resistant drug formulations, expanded access to naloxone, and guidance for appropriate opioid prescribing for chronic pain. Although it is too early to determine the broad impact of these strategies, opioid-related morbidity and mortality appear to be largely unrelenting. Furthermore, while these efforts may reduce some of the morbidity associated with long-term use, addiction, and diversion, they may do little to address opioid-related toxicity and misuse that is particularly germane to children and adolescents.

Recently, an intriguing approach to this crisis was adopted by the American Medical Association (AMA) House of Delegates: to abandon the concept of “pain as a fifth vital sign” strategy from clinical practice. \(^2\) The resolution argued that treating pain as a vital sign has contributed largely to opioid overprescribing while doing little to improve pain outcomes. Representatives of the American Academy of Pain Medicine pushed back on this resolution, arguing that this pain standard rightly prioritizes pain by clinicians. However, we argue that compelling evidence supports the AMA resolution and calls for a new approach.

Good evidence suggests that the “pain as a vital sign” approach to assessment, launched in concert with the 2001 Joint Commission Pain Standards, propelled an observed 2-fold increase in opioid prescriptions over the course of a decade. Indeed, pain score documentation increased the odds of opioid prescribing to children in one emergency setting, \(^3\) and prescriptions quadrupled for adolescents and young adults in the years after this approach, \(^4\) with more than 9 million dispensed to this group in 2009 alone. \(^5\) While this mandate served the purpose of increasing attention to pain in hospital and ambulatory settings, it also had several unintended, deleterious consequences—perhaps by way of erroneous implementation.

To expediently respond to the Joint Commission mandate, clinical settings across the United States implemented the use and documentation of various pain scales, which, in effect, reduced the assessment and interpretation of pain to a single number. Thereafter, the pain score was upheld as an objective gold standard (ie, the fifth vital sign) in clinical practice, although many non-pain factors (eg, anxiety or distress) influence these ratings for children and adults. As a consequence, widespread implementation of pain scores resulted in millions of documented pain scores with little to no guidance on how best to address them.

Over this same period, a body of well-intentioned research provided data describing how pain scores should be interpreted in clinical and research settings. Pediatric studies used population-based assessment data to demarcate pain score cutpoints that best differentiated mild, moderate, and severe pain. \(^6\) Contemporaneously, clinicians were given treatment algorithms to facilitate analgesic decision making and address these differing levels of pain intensity. Many such algorithms have guided treatment of mild pain (low scores) with nonopioids and moderate to severe pain (high scores) with opioids generally without consideration of the source of pain. Thus, moderate to severe headache, musculoskeletal, postoperative, and inflammatory pain were largely treated equally and unabashedly with opioids.

Compounding the problem were quality improvement efforts that evaluated practitioners and health care settings based on pain score documentation, pain score cutpoints (eg, “maximum acceptable pain score” or acceptable discharge pain score), and patient satisfaction. In one setting, pain policies guided practitioners to titrate opioids to reduce pain scores to low numbers (eg, <3 of 10), even as reported adverse events (eg, oversedation) were excessive. \(^7\) Furthermore, physicians have acknowledged prescribing opioids inappropriately in an effort to improve patient satisfaction surveys and avoid financial and professional penalties that may result from poor reviews. \(^8\) However well-intentioned, these quality improvement approaches likely contributed to the opioid-related harm that has been observed in the hospital and community settings. Particularly noteworthy is that many of the prescribed opioid doses dispensed to children go unused, creating a source for accidental poisoning, diversion, and misuse. \(^9\)

Pain scores have now been embedded into practice for more than a decade. The AMA suggestion that the “pain vital sign” has ineffectively addressed the pain problem is largely supported given the increasing rates of long-term moderate to severe pain. While pain intensity scores provide useful, population-based evaluative
data for the purpose of research, they have far less meaning for the individual patient, particularly children. At their very best, pain scores reflect only 1 very narrow aspect of a patient’s pain experience, ie, the perception of the size or intensity of pain. In children, this perception is often influenced by many moderating factors including fear and non-pain distressors.

As pain researchers, we developed and tested the 10-point Face, Legs, Activity, Cry, and Consolability pediatric pain assessment scale that is widely used in clinical pediatric practice today. Even as our data supported the psychometric properties of the instrument, we and others have explicitly stated that pain intensity scores should be interpreted with caution and within a broader context of the patient experience. This message has failed to trickle down such that the clinical emphasis on simplistic pain score measures persists. However, there is a growing movement to deemphasize the use of the pain score in practice. A 2012 Joint Commission Sentinel Event Alert called out the contributing role of the pain score by explicitly stating that pain score cutpoints should not be used when making opioid decisions. Others have denounced the analgesic stepladder approach to treating pain for its role in the crisis, suggesting that “attempts to lower pain scores using opioids has led to overuse and adverse outcomes.”

However, without a stronger edict, continued reliance on simplistic pain scores for prescribing and dosing decisions for children and adults is likely to extend the crisis surrounding pain management, opioid overuse, and patient morbidity. The AMA resolution to dismiss the “pain as a vital sign” standard may expedite the much-needed attention to our flawed implementation.

Given the ongoing concerns regarding pain management and opioid (mis)use among children and adolescents, we must consider this radical approach to change the way clinicians think about and treat pain. Replacing the simplistic pain score with a more holistic, patient-centered assessment that includes pain quality and pain-related function (ie, ability to perform normal activities; eg, Patient-Reported Outcomes Measurement Information System pain interference measure) would be a step in the right direction. Eliminating pain intensity-based treatment algorithms is also essential, as is medical education that includes a comprehensive, individualized approach to pain management and training for opioid prescribers.

Pain is a complex phenomenon that deserves a complex assessment approach focused on pain quality and function rather than quantity. Pain scores in and of themselves are far too limited and individually meaningless to guide clinical prescribing, dosing practices, and analgesic evaluation. As such, their blanket use in pediatric clinical practice has become overly risky and inappropriate. Therefore, is it not time to consider supplanting the pain score with other safer assessment strategies?

REFERENCE


ARTICLE INFORMATION

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