دکترمریم زوارموسوی

فوق تخصص روانپزشکی کودک ونوجوان
استادیاردانشگاه علوم پزشکی گیلان

ارزیابی درد در کودکان

ASSESSMENT OF PAIN

- Pain is measured by self-report, observational, and/ or physiological measures.

- When possible, pain is best assessed by asking the child in pain about the location, quality, duration, frequency, and intensity of the pain.

- Some children, however, do not have the cognitive capacity to engage in such an assessment. In such cases, clinicians or parents can have difficulty differentiating between distress related to pain and distress related to fear or some other discomfort.

- Some children become adept at using distraction or withdrawal/dissociation to cope with pain and therefore might appear comfortable when they truly are not comfortable.

- This can present a confusing picture for clinicians who might see a child exhibiting extreme pain behaviors alternating with normal play, television viewing, or sleep.

- Finally, some individuals may be reluctant to report pain due to anxiety related to talking to doctors, getting an injection of pain medication, being viewed as weak or demanding, distressing others, becoming addicted to pain medication, not being able to stay awake or think clearly, or finding out they are sick or in need of going to the hospital

- structured pain assessment tools have been developed for use with children and adolescents

- The clinician should use measures that are developmentally appropriate and rate pain prospectively (in the moment) whenever possible.

- Because asking children or adolescents to focus on pain can exacerbate the pain, the clinician should ask them to rate pain only when necessary.

- For hospitalized chronic pain patients, it is acceptable to the Joint Commission on Accreditation of Health Care Organizations to refrain from pain assessment as the fifth vital sign if this instruction is incorporated into the treatment plan.

- clinical Interview In addition to soliciting a careful description of the patient’s pain, the clinical interview should review factors that are related to pain perception and disability.

Measurement of Pain

- Use of Appropriate Measures Pain is measured by self-report, observation, and/or physiological measures, which include changes in heart rate, blood pressure, sweating, and pupillary dilatation

- It is critical to use assessment measures that are developmentally appropriate. Because direct report is not feasible with infants and younger children, it is often necessary to rely on observational reports from family members or the pediatric team.

Self-Report Measures

- Self-report measures are generally valid for children as young as 4–5 years.
- These measures are usually combined with parent observations. Self-report measures are limited by difficulties in discriminating between intensity and duration and between the physical and emotional components of pain.
- It is important to also ask about physical sensations (i.e., heat, burning, or skin sensitivity that occur in neuropathic pain) that may accompany pain complaints. The following self-report measures have been used

Verbal Descriptor Scale

- This scale requires the child to rate the pain experienced according to one of five to seven verbal descriptors, with a limited range of options offered. The child must have adequate verbal skills and ability to use this scale, and its use may not be appropriate in younger children.

Numeric Rating Scale

- With the widely used numeric rating scale, the child is asked to rate his or her pain on an 11-point scale anchored at one end by no pain (or 0) and at the other by worst pain possible (or 10). These ratings are reliable and correlate well with other simple assessment measures.

- The child must have intact language and cognitive skills.

Visual Analog Scale

- Visual Analog Scale Similar to the numeric rating scale, this scale consists of a line with descriptive or numerical anchors on a continuum of pain intensity, similar to a Likert scale

- The scale, anchored at one end by no pain (or 0) and at the other by worst pain possible (or 10), is presented to patients, who are asked to describe their current pain by making a mark across the line. This scale is valid and reliable for children age 8 years or older.

Faces Scale

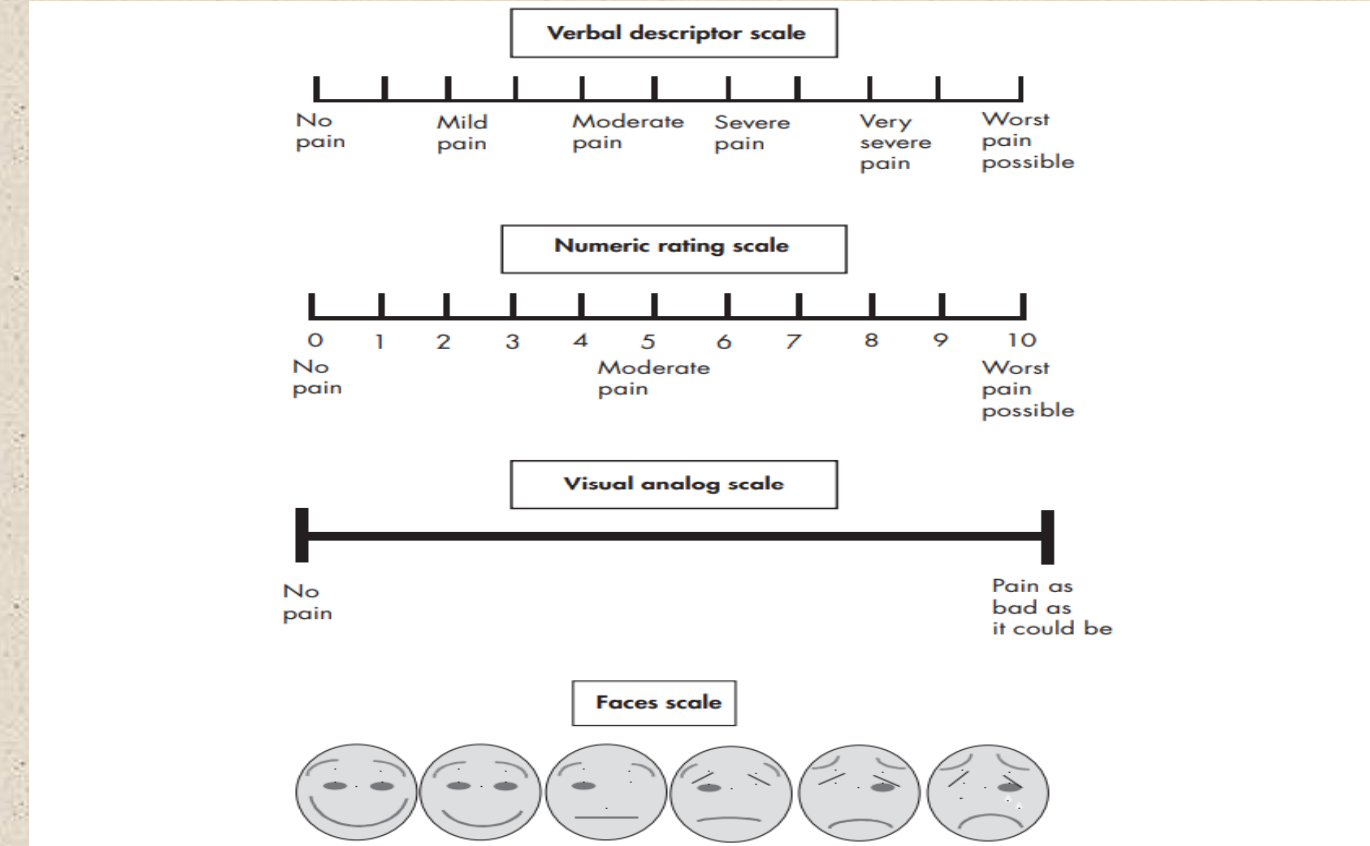
- Faces Scale This scale consists of six faces depicting different intensities of pain

- It is a useful measure for children older than 6–8 years and is thought to be more direct and less complex than visual analog scales.

Pain Diary

- Pain diaries may be used by older children and adolescents to report their pain experience at the time it occurs in order to avoid errors associated with retrospective recall.

- Pain diaries provide good baseline data prior to intervention and may include comments about functional ability, pain triggers, coping strategies, and medications used and their efficacy. Pain diaries may also be contrasted with parent reports of their child's pain


Verbal descriptor scale
No pain
Mild pain
Moderate pain
Severe pain
Very severe pain
Worst pain possible
Numeric rating scale
0 1 2 3 4 5 6 7 8 9 10
No pain
Moderate pain
Worst pain possible
Visual analog scale
No pain
Pain as bad as it could be
Faces scale

Psychiatric Assessment

- Psychiatric assessment may be requested when there is suspicion that the patient's symptoms and/or response to treatment have an emotional component that is problematic.

- When approaching such referrals, consultants should avoid the dichotomy between a physical and emotional etiology for the pain.
- Explanations of how emotional factors may exacerbate the child's experience of underlying physical pain are more successful in engaging patients and their families.

- It is important to validate the patient’s experience of pain and to explore the impact the pain has had on all members of the family. Sociodemographic, medical, treatment, situational, and psychological variables are key to understanding a patient’s response to pain

- Sociodemographic Variables Pain responses have been noted to be associated with several sociodemographic variables, including the patient’s age, gender, and ethnic background.

- Young children, for example, are more likely to experience distress during pain episodes or painful procedures partly because of their less mature coping skills
- Firstborn children appear to have lower pain thresholds; this may be due in part to greater reinforcement of pain complaints that may occur with first-time parents.

- Girls, especially as adolescents, generally report lower pain tolerance and a higher frequency of pain complaints compared with boys, a finding hypothesized to be related to cultural and societal variables . Culture and ethnicity play an important role in determining how much expression of pain is acceptable

Medical Variables

- Pain duration and predictability as well as disease severity influence the experience of pain. Prior negative experiences with painful procedures are associated with more patient distress.

- It appears to be the adverse nature of the prior experience rather than the number of pain episodes that is of greater significance.

- Sleep deprivation affects pain perception and may interfere with efforts to divert attention from pain sensations. Similarly, increased muscle tension or protective posturing secondary to pain may increase the child's experience of pain

Treatment Variables

- The choice and dosage of pain medications prescribed can influence the pain experience.
- Suboptimal dosing or the use of “as-needed” medication for breakthrough pain rather than scheduled dosing can contribute adversely to the pain experience
- . Forgetfulness, lack of supervision, or nonadherence due to the patient’s or the family’s reluctance to take medications may play significant roles. Consultants should inquire about current or past use of nonpharmacological interventions.

Situational Variables

- Children who lack age-appropriate information about their illness and its treatment are more likely to experience distress.
- This is particularly true when children have little perceived control over the treatment.
- Children need adequate preparation for procedures whenever possible and should receive instruction in effective coping methods (e.g., distraction techniques).
- Pain tolerance is negatively affected when there are inconsistencies in the procedure expected or in the response by pediatric staff or parents. It is important to ensure that children have parental support during pain episodes and procedures

Psychological Variables

- Meaning of Pain
- Children's knowledge, attitudes, and beliefs about their illness may influence their perception of pain and their response to treatment. Pain may be viewed as a punishment, as a challenge, or in some cases as a character-building experience.
- Pain that is perceived as having little benefit or that is associated with potential disfigurement or disability is likely to be less well tolerated . Similarly, a child with a diagnosis of cancer may interpret pain as an indication of disease progression or relapse and experience increased anxiety or depression.

Personality Characteristics

- Personality characteristics affecting the child's response to pain include the tendency to withdraw from others in response to pain, the ability to seek support, and coping style.

- For example, children with low adaptability tend to report more distress during painful procedures, and those with negative thinking or a tendency to catastrophize tend to report more psychological distress and need for medication

- Patients may be classified on the basis of their habitual tendency to approach or avoid new situations. Although there is no definitive coping style associated with adaptation to pain, the critical dimension appears to be whether the child has the freedom to use his or her own specific approach.

- Stress Pain
- is frequently correlated with stressful life events.

- School-related stressors (e.g., performance anxiety related to tests or sports), family stressors (e.g., death, abuse, divorce, new siblings), and stressors related to the illness (e.g., immobilization, disfigurement) might all play important roles in the development and/or exacerbation of pain

Psychiatric Comorbidity

- Psychiatric comorbidity is common and often overlooked in children with pain, in part because of the difficulties of making a psychiatric diagnosis in a physically ill child.

- Although depression may be secondary to the physical illness or its treatment, the presence of a depressive disorder increases the risk of developing chronic pain conditions.

- There is a strong relationship between pain and anxiety. Pain often results in symptoms of anxiety, and anxiety may decrease the pain threshold and increase the sensation of pain
- The possibility of substance abuse is an important consideration in adolescents. Patients with chronic recurrent pain (e.g., sickle cell crises) may be at risk of developing a dependence on narcotic medication that begins with benign use but evolves into a pattern of drug-seeking behavior.

Family Influences

- Parents play an important role in both mediating and promoting the child's experience of pain, and there is a tendency for pain to aggregate in families.
- Parents with a history of multiple chronic pain symptoms are more likely to have children with impairment and disability.
- Parents who are more somatically focused are more likely to take medications for physical symptoms and may encourage their child's own pain complaints. Consultants should explore the ways that parents wittingly or unwittingly might reinforce their child's pain behavior.

Secondary Gain

- Pain symptoms may be promoted by secondary gain, which is the avoidance of a stressful or unpleasant situation.
- Pain behaviors may allow the child to remain home from school and avoid a stressful academic or social activity.
- Pain may provide the child with a legitimate excuse for dropping out of competitive sports.
- In families with high levels of dysfunction, pain may serve the function of diverting family attention away from a problematic conflict (e.g., marital problems) or provide a way for a parent to meet his or her own unresolved needs for attention through interactions with pediatric care providers or through sympathy and attention from friends and family members.

Table 10–2. Key elements in the psychiatric assessment of pediatric pain

Characteristics of pain

- Location/radiation
- Quality
- Intensity
- Duration and frequency (e.g., acute, recurrent, chronic, during procedures)
- Level of distress and assessment of the relationship of pain with severity of

Precipitating or exacerbating factors

- Fatigue
- Malaise
- Menstrual cycle
- Stress
- Bright lights
- Lack of sleep/fatigue

Alleviating factors

- Distraction
- Vomiting
- Touch

provide a way for a parent to meet his or her own unresolved needs for attention through interactions with pediatric care providers or through sympathy and attention from friends and family members.

Table 10–2. Key elements in the psychiatric assessment of pediatric pain *(continued)*

Use and efficacy of past and current treatment interventions

- Pharmacological
  - Types of medication used
  - Schedule of medications (e.g., scheduled vs. as-needed dosing)
  - Frequency of missed treatments (i.e., treatment adherence)
  - Reasons for missed treatments
  - Efficacy of previous treatment
  - Side effects of treatment
- Nonpharmacological
  - Physical therapy
  - Biofeedback
  - Guided imagery
  - Hypnosis
  - Distraction

Impact of pain

- Emotional (e.g., depression, anxiety, posttraumatic stress disorder)
- Family (e.g., disruption of work schedule, impact on marital relationship, impact on siblings, distraction from family conflict)
- Social and peer relationships
- Academic (e.g., absenteeism, placement in home teaching)

Family beliefs regarding pain

- Belief in single, undiagnosed primary medical cause for the pain
  - Investment in further medical workup
  - Unjustified concerns about potential medical illness
- Belief in role of environmental triggers

Family beliefs regarding pain ***(continued)***

- Belief in role of psychological factors
- Beliefs regarding pain control
  - Awareness of pharmacological strategies
  - Awareness of nonpharmacological approaches
  - Belief that child should rest and be excused from responsibilities during pain episodes

Family medical history

- Family history of unexplained somatic symptoms
- Pattern of reinforcement of illness behavior in the family

Reinforcement of pain behaviors

- Reinforcement by parents
  - Parents keep medical journals and diaries of symptoms
  - Parent stays home from work
- Increased attention or sympathy from family and/or friends
- Increased attention from medical providers
- Avoidance of school, social, or athletic stressor