

## Pain Assessment: A Key to Pain Alleviation among Children

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**Abstract:** Pain assessment is an important aspect of pain management. A thorough assessment of pain will enable the medical professional to decide on the appropriate management of pain. As pain is inevitable and more subjective in nature, a meticulous assessment of pain will enhance the management. Undermanaged pain will lead to physiological and psychological consequences. Many myths and facts revolve around pain perception, assessment, and management which may interfere with the pain therapy. In children, pain assessment and management becomes a challenge to the nurse, as children's perception and expression of pain vary so much from an adult. Assessing pain in children becomes a difficult task, but there are easy approaches such as QUESTT to assess pain both subjectively and objectively which is useful to choose the appropriate pain management in children.

**Keywords:** pain, pain assessment, pain facts, pain myths, QUESTT,

### I. Introduction

Pain is unavoidable, subjective, and is a unique experience of an individual. Pain cannot be defined accurately since it is the perception of every human being. According to McCaffery and Beebe<sup>1</sup> pain is defined as whatever the experiencing person says it is, existing whenever person says it does. Perception of pain in individuals depends on their tolerance and threshold. Pain perception in children is complex, and it varies based on their age, development, understanding, and their previous experience. Pain assessment is a critical component of the nursing process. Pain assessment plays vital role in managing pain. Unfortunately, health professionals, including nurses tend to underestimate the existence of pain in children. One of the reasons for under management of pain in children is inadequate assessment of pain. The American Pain Society<sup>2</sup> created the phrase "pain: The fifth vital sign", to increase awareness of pain assessment among health care professionals emphasizing the importance of pain assessment. Thus pain is to be assessed every time a nurse checks the pulse, blood pressure, temperature, and respiratory rate.

### Myths and Facts of Pain Perception in Children

There are common myths present among health care professional regarding pain in children, which leads to inadequate assessment and management of children with pain (see Table 1). It is essential for a health professional to understand these myths in order to overcome them and know the reality or facts regarding the pain perception in children<sup>3</sup>.

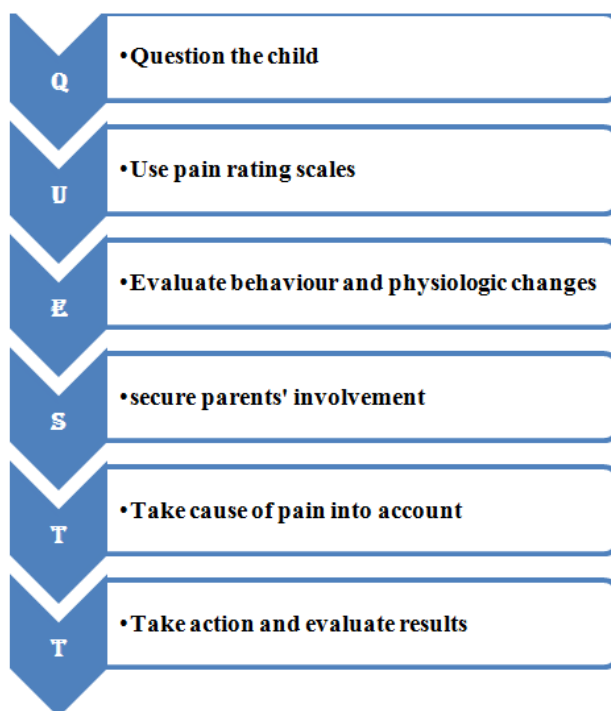
**Table 1** The myths and facts of pain perception in children

Myths	Reality
<ul style="list-style-type: none"> <li>▪ Newborns and infants are incapable of feeling pain.</li> <li>▪ Children nervous system is immature, so they cannot feel pain like adult.</li> <li>▪ Infants and children have no memory of pain.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The anatomic and functional requirements for pain processing are present early in fetal life. Preterm and full-term newborns are more sensitive to painful stimuli because of immature spinal cord</li> <li>▪ Preterm infants have been noticed to experience unpleasant by pulling the foot away to avoid the pain during heel stick blood collection.</li> <li>▪ Infants cry in anticipation of immunizations</li> </ul>
<ul style="list-style-type: none"> <li>▪ Parents exaggerate their child's pain.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Parents know their child well and they are able to feel their child's discomfort than anybody.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Children are not in pain if they can be distracted or if they are sleeping.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Children use distraction to cope with pain, but they soon become exhausted when coping with pain and fall asleep.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Children become more tolerant to pain after been exposed to painful situation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Children who have more experience with pain respond more vigorously to pain. Experience with pain teaches how severe the pain can become.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Children recover more quickly than adults from painful experiences such as surgery.</li> <li>▪ Children can express if they are in pain.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Children heal quickly from surgery, but they have the same amount of pain from surgery as an adult.</li> <li>▪ Children may be too young to express pain or afraid to tell</li> </ul>

<ul style="list-style-type: none"> <li>Children do not need medication unless they appear to be in pain.</li> <li>Narcotics are more dangerous for children.</li> </ul>	<ul style="list-style-type: none"> <li>anyone other than a parent about the pain.</li> <li>The child fears the treatment for pain may be worse than the pain itself.</li> <li>Narcotics are no more dangerous for children.</li> </ul>
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**Approach to Pain Assessment in Children**

There are various methods available to assess the pain in children. According to Baker and Wong<sup>4</sup>, QUESTT approach helps in identifying the pain in children. QUESTT is an acronym used to assess pain as depicted in Figure 1.



**Figure 1.** QUESTT approach to pain assessment

**Question the Child**

Questioning is one of the best method to understand the pain in children. Children’s verbal statements of pain are most reliable indicators of pain. To help the child to describe the pain, the nurse should use familiar language with simple words while questioning on pain. Children pain can also be assessed by providing play to understand their discomfort. When asking children about pain, the nurse must remember that children may deny pain because of the fear of receiving an injection, and some children may believe that they deserve to suffer as punishment for some misdeed. Questioning the children on pain can be done by using PQRST method that is presented in Table 2.

**Table 2**PQRST Approach In Questioning A Child’s Pain

<b>P</b> = Presence of pain	"Are you having pain right now?" "When did you last feel the pain?"
<b>Q</b> = Quality of pain	"Is your pain sharp? Tingling? Burning?"
<b>R</b> = Radiation/location	"Show me where the pain starts. Does it shoot or move around anywhere else?"
<b>S</b> = Severity	This can be assessed by using the age-appropriate pain rating tool.
<b>T</b> = Timing	"Does the pain come at any particular time, like when you move your arm or just after you eat?" "How long you have this pain?" "How long does the pain last?"

The parents or caregivers also can be asked similar questions such as:

- What words are used by your family to describe pain?
- How do you handle situations when your child has pain?
- How does your child usually react during pain?
- How does your child react to seeing his own blood?
- What medications have you used in the past when your child has experienced pain?
- Has your child ever experienced severe pain? How did you manage that?

### Use Pain Rating Scales

Pain rating scales provide a subjective quantitative measure of pain. It is used to identify the pain in children by their self report or by assessing their facial expressions. Objective measures are most appropriate for children who cannot verbalize, developmentally delayed, and for the children who are unable to cooperate. The pain scales need to be selected and used based on the child's age, abilities, and preference. There are various pain rating scales available to assess the pain in children. The nurse should be knowledgeable in choosing an appropriate pain rating scale to assess the pain. The commonly used pain assessment tool in children is,

1. FACES Pain rating scale
2. Numeric scale

### Faces pain Rating Scale:

It consists of six cartoon faces ranging from smiling face for "no pain" to fearful face for "worst pain." It helps the children to express the severity of pain by choosing an image.

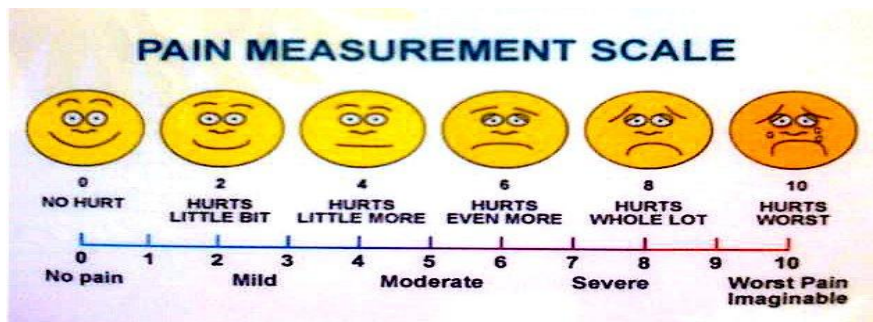


Figure 2. The faces pain rating scale<sup>5</sup>

The FACES provides three scales in one: facial expressions, numbers, and words. Nurse should point to each face using the words to describe the pain intensity. Ask child to choose face that best describes own pain and record appropriate number.

### Numeric Scale:

It is used when the commercially prepared pain assessment tools are not available, simple numeric scales can be utilized to identify pain intensity.

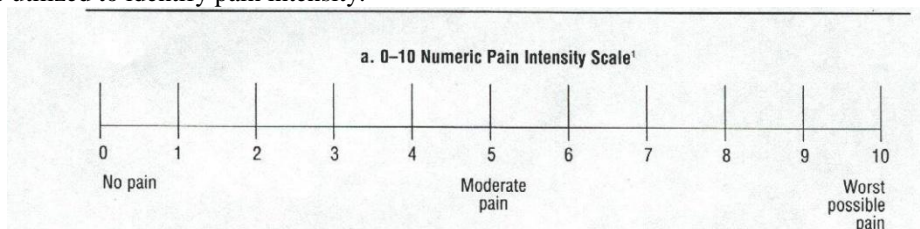


Figure 3. Numerical rating scale<sup>6</sup>

The key factors in using numeric scale;

1. The child must be able to count to 10, and understand the use of rank-order.
2. There should be consistent use of the same numeric scale (always a 1-5 scale or always a 1-10 scale, so the numbers selected can be consistently interpreted),
3. It should be documented with a simple mnemonic aid such as the "PQRST"

### Evaluate the Behaviour and Physiological Changes

Physiological changes includes variations in heart rate, blood pressure, respirations, O<sub>2</sub> saturations, palmer sweating, skin pallor, flushing, or cyanosis, alteration in body position or posture: grimace, eye clench, knees drawn onto abdomen, rigid posture, muscle guarding, thrashing, restlessness.

Behavioral changes include crying, withdrawal, and use of inappropriate coping strategies such as screaming, kicking, spitting, or hitting. Age related behavioural changes such as pulling the ear for ear pain, rolling the head from side to side for head and ear pain, lying on the side with legs flexed for abdominal pain, limping for leg or foot pain, and refusing to move the body part. These are the common indicators of pain and are especially valuable in assessing pain in nonverbal children.

### **Encourage Parent's Involvement**

Parents are the primary source of information about how their child exhibits pain and they are sensitive to changes in their child's behaviour and typically want to be involved in their child's pain relief. Parents should be educated about the objective nature of pain assessment and encouraged to report pain promptly.

### **Take Cause of Pain into Account**

The source of pain needs to be evaluated in order to provide appropriate management. Pain may be due to physical or psychological causes. Identifying the cause will enable the nurse to decide on the pharmacological or non-pharmacological therapy. Pharmacological management includes a combination of therapy which is decided on the cause of the pain. When children exhibit behaviours or other clues that suggest pain, reasons for discomfort should be identified. It helps in providing comprehensive nursing care for children with pain. e.g., Pain caused by bone marrow puncture is greater than the discomfort associated with the venipuncture.

### **Take Action/Evaluate Results**

Prompt intervention as per the doctor's order should be carried out by the nurse. Non-pharmacological measures appropriate to the child's age and interest should be used based on the principles of diversion and stimulation. After the action the child should be evaluated for the outcome of the therapy offered. Ongoing evaluation is essential to ensure adequate and appropriate management of pain.

## **II. Conclusion**

The pain experience in children is influenced by the child's age and developmental level, the cause of the pain, the nature of the pain, and the child's ability to express the pain. To minimize the risk of under treatment of pain, pediatric nurse should assess the child's pain level frequently and managing effectively in improving the child's comfort.

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