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Overview of Pain In Children

Faculty/Presenter Disclosure

- ▶ **Faculty:** Naiyi Sun
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Learning Objectives

By the end of this session, participants will be able to:

- Describe the context of pain in children
- Describe the prevalence of chronic pain in children, and common pediatric pain presentations/diagnoses
- Describe the importance of assessing pain in children using a biopsychosocial model



PE – Bar Graph

How common is chronic pain in children in Canada?

1. 1 in 100
2. 1 in 10
3. 1 in 4
4. 1 in 2



PE – Word cloud

- Write down 3 words that come to mind when you hear “pain in children”



PE – Text Wall

Why is pain undertreated in children (write a **word or 2** that best describes your idea)




Barriers to Pediatric Pain Management:

Myth

- Babies do not feel pain
- Young children do not remember pain.
- Children are less sensitive to pain than adults.
- Children are unable to tell you when they hurt

Fact

- The CNS of a 24 wk old fetus can experience nociception.
 - Babies as young as six months can show a strong pain response to subsequent pain situation.
 - Younger children experience higher levels of pain than older children and adults.
 - Using age-appropriate measures, pain assessment is possible.
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Why is pain undertreated in children ?

- Inadequate pain education
- Invisible and subjective
 - Lack of 'diagnostic test'
 - Stigma; disbelieved
- Myths & misconceptions?
 - We all have pain (so suck it up...)
 - People with chronic pain
 - smile, look normal - so pain can't be that bad.
 - are 'just depressed', or lazy, or like to complain/get attention
 - If you take painkillers you will get addicted or it



Common primary chronic pain diagnoses in Children?

Pain Sites	Prevalence (Range)	Age differences	Sex Differences
Headache	8-82.9%	Older>younger	Girls>boys
Abdominal pain	3.8-53.4%	Younger> older	Girls>boys
Back Pain	13.5-24%	Older>younger	Girls>boys
Musculoskeletal/limb pain	3.9-40%	Older>younger	Girls>boys
Multiple pains	3.6-48.8%	Unclear	Girls>boys
Other/general pain	5-88%	Unclear – possible age X sex interaction	Girls>boys

(King et al., 2012)

PE – Bar Graph

- How often do kids with chronic pain become adults with chronic pain?
1. $1/10$
 2. $1/2$
 3. $2/3$
 4. $3/4$

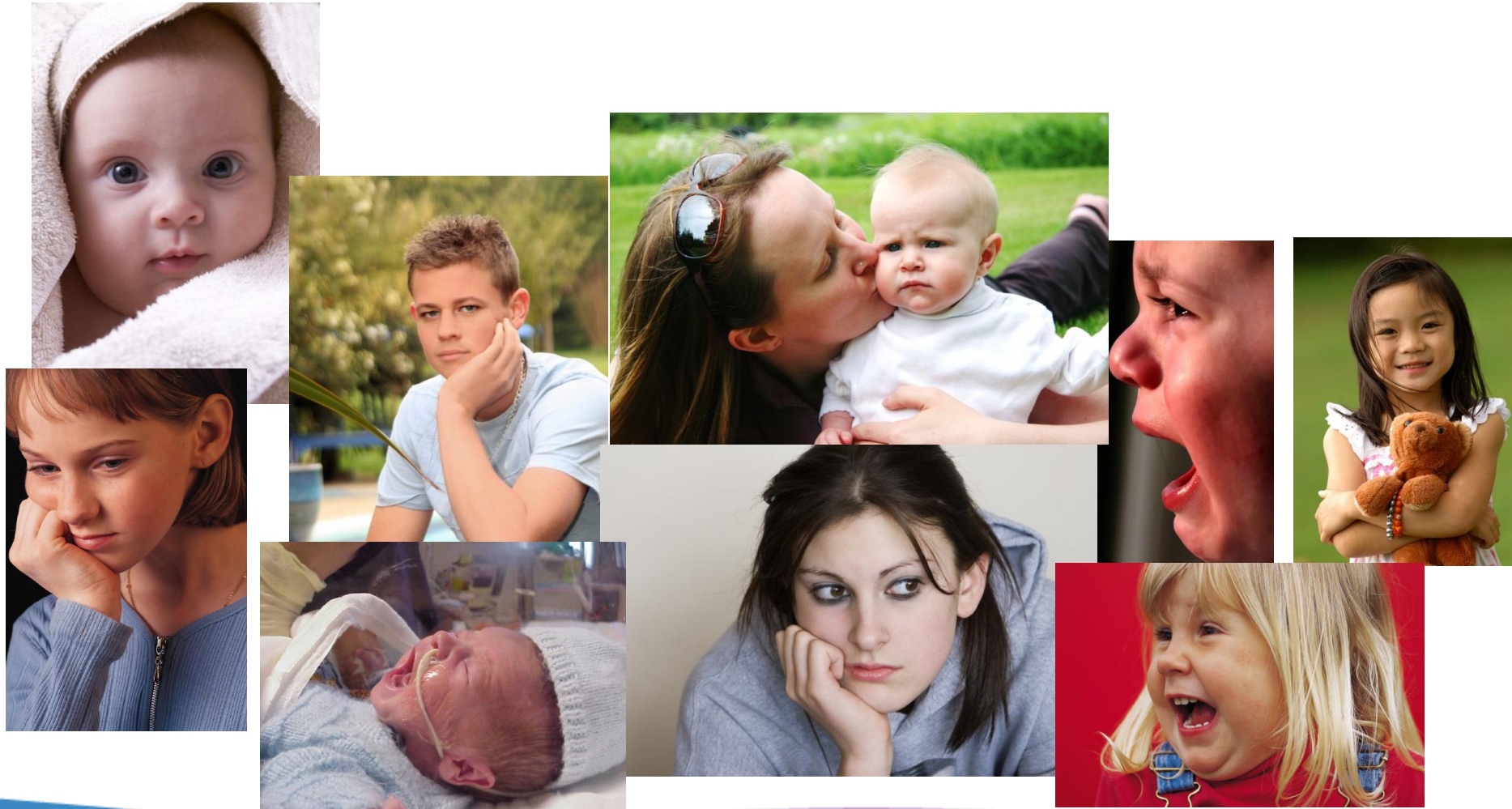


Furthermore...

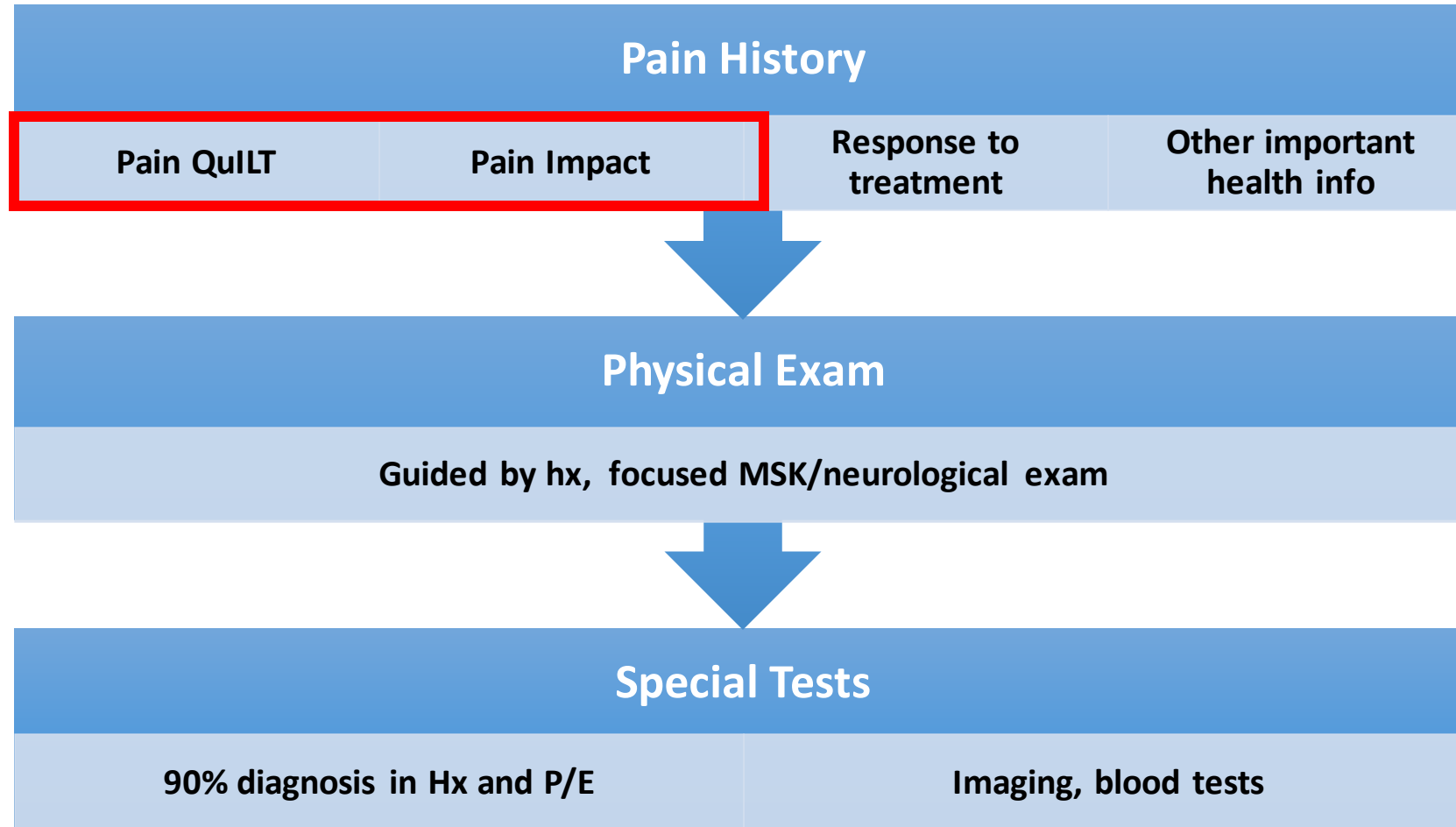
- 2/3 of kids with chronic pain become adults with chronic pain
- Adolescents living with chronic pain are at increased risk of opioid addiction as adults
- Adolescents with chronic pain are associated with lower educational attainment and poor vocational function as adults.
- By treating pain in youth, we can reduce the burdens of pain and addiction in adults



What Does a Child in Pain Look Like?




Pain Assessment





Pain History (current)

- Ask child as much as possible
 - History of the current pain problem (PQRST)
 - **P**rovoking/Palliative factors
 - **Q**uality
 - **R**egion/Radiation
 - **S**everity
 - **T**ime/Treatment
- 

Pain Intensity Measurement:

1. Self Reporting:

- Pain should be self-reported whenever possible since pain is a subjective experience.

2. Observation (Behavioral):

- Self report is not always available depending on the child's age and his/her ability to communicate



Young and Non-Verbal Children:

FLACC PAIN RATING SCALE for children 1 to 3 years of age

The FLACC (Face, Legs, Activity, Cry, Consolability) is a behavioral pain assessment scale for use for non-verbal or pre-verbal patients unable to self-report their level of pain. Rate your child in each of the five measurement categories, add together, and document total pain score (0 – 10).

	0	1	2
Face	No expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arches, rigid, or jerking
Cry	No cry (awake or asleep)	Moans or whimpers, occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging, or "talking to"; Can be distracted	Difficult to console or comfort

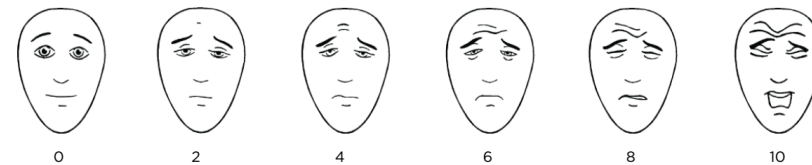
Younger Children:

Wong-Baker FACES® Pain Rating Scale



Faces PAIN SCALE - REVISED (FPS-R) for children over age 3

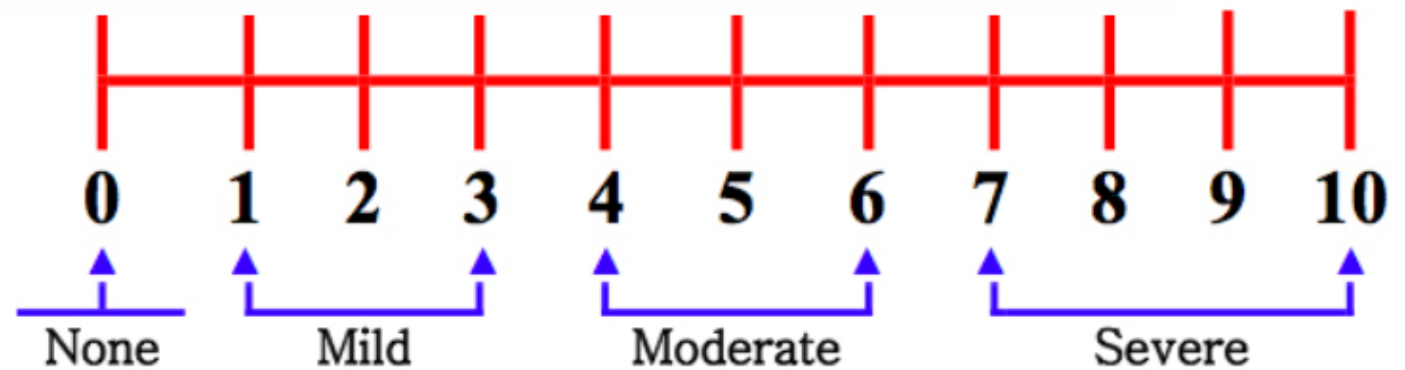
Point to the face that shows how much you hurt.



These faces show how much something can hurt. The left-most face shows no pain. The faces show more and more pain up to the right-most face - it shows very much pain.

Older Children > 7:

Numerical Rating
Scale (NRS)

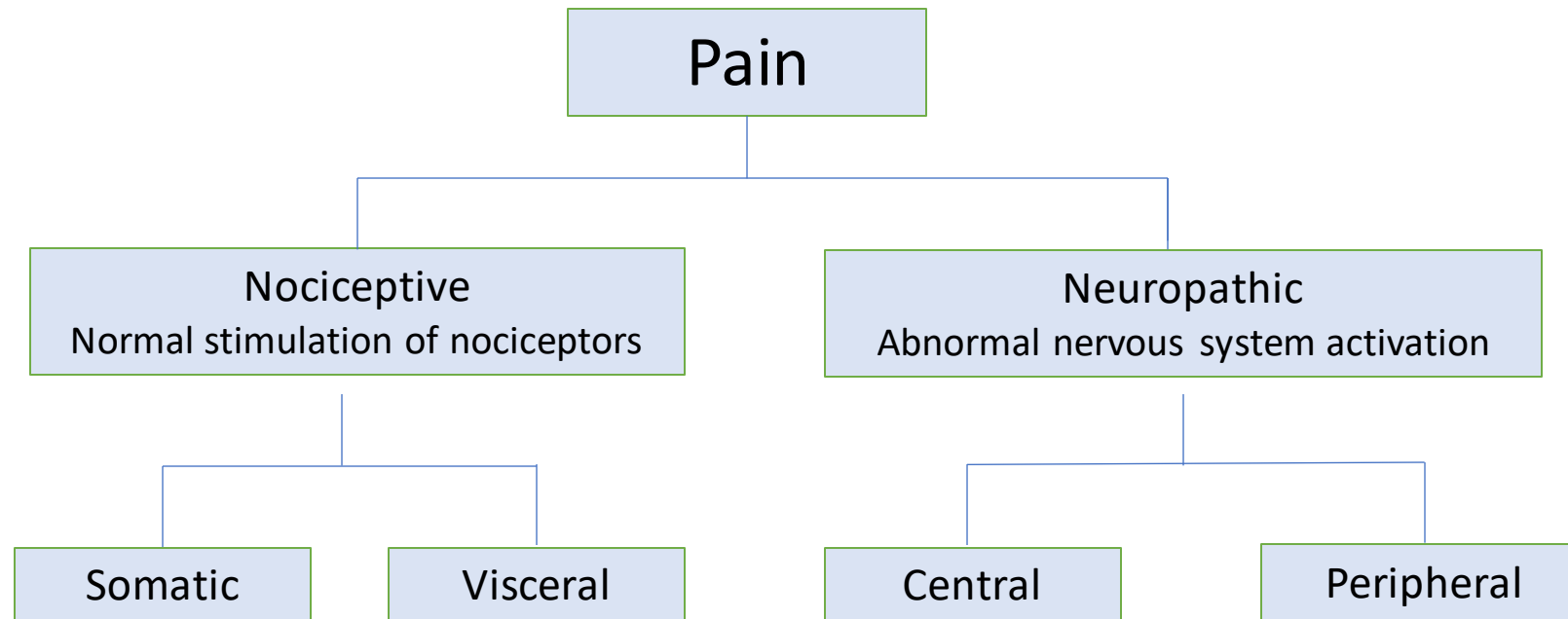


Special Considerations for Children with Cognitive Impairments

- Complexity of pain assessment in children who cannot verbalize their pain.
- rFLACC can be individualized for each child
- Incorporate parent knowledge of the child
- Common pain behaviors in severe neurological impairment (SNI):
 - Vocalizations, facial expressions, consolability, increased tone, movement.
- Atypical behaviors:
 - Blunted facial expression, laughter, breath holding, self injury.



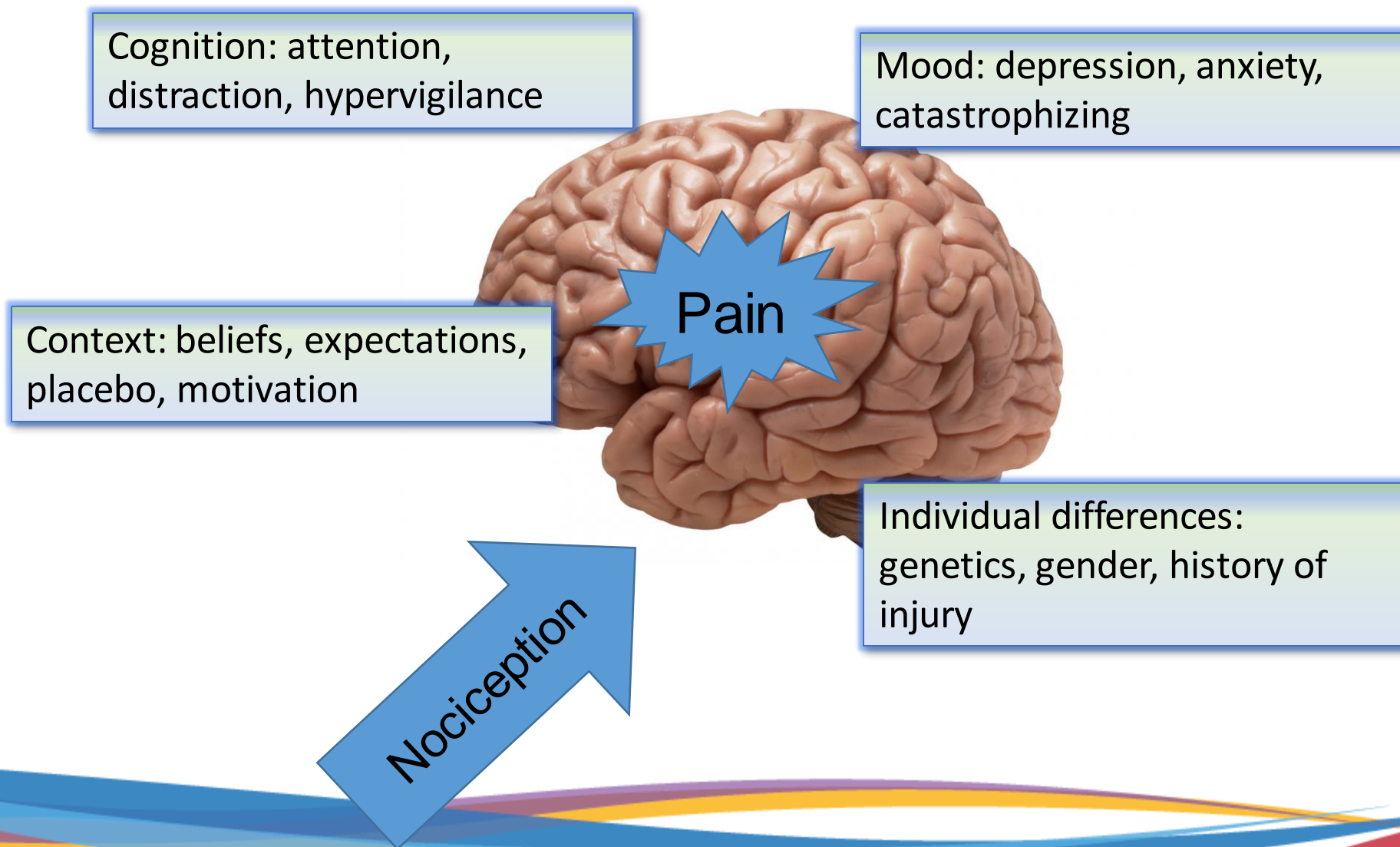
How to classify chronic pain?



Pain Descriptors

Nociceptive Pain Descriptors	Neuropathic Pain Descriptors
Aching	Burning
Cramping	Tingling
Throbbing	Shooting
Pressure	Electrical shock like
Sore	Freezing
Stiffness	Lancinating
Spasm	Numbness
Pulling	

Dimensions of pain

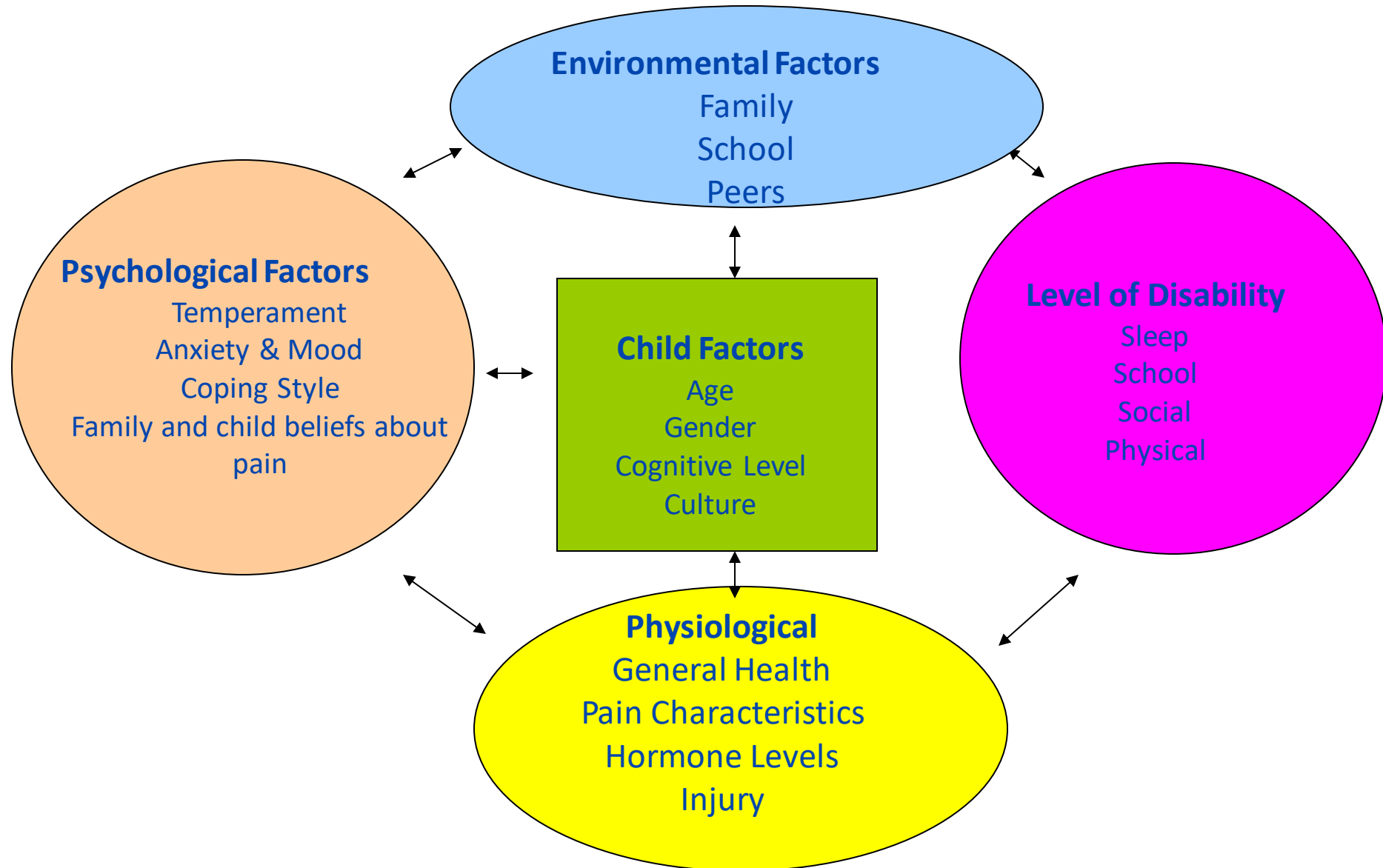




Pain Interference

- Physical Functioning
 - Decreased activity levels
 - Impact on pursuit of life goals
- School Functioning
 - Absenteeism
 - Stress and anxiety related to missed academic work
 - Bullying
 - Isolation from peers
- Emotional functioning
 - Anxiety and depressive symptoms
- Sleep time and quality

Biopsychosocial Model



Common Parental Misconception

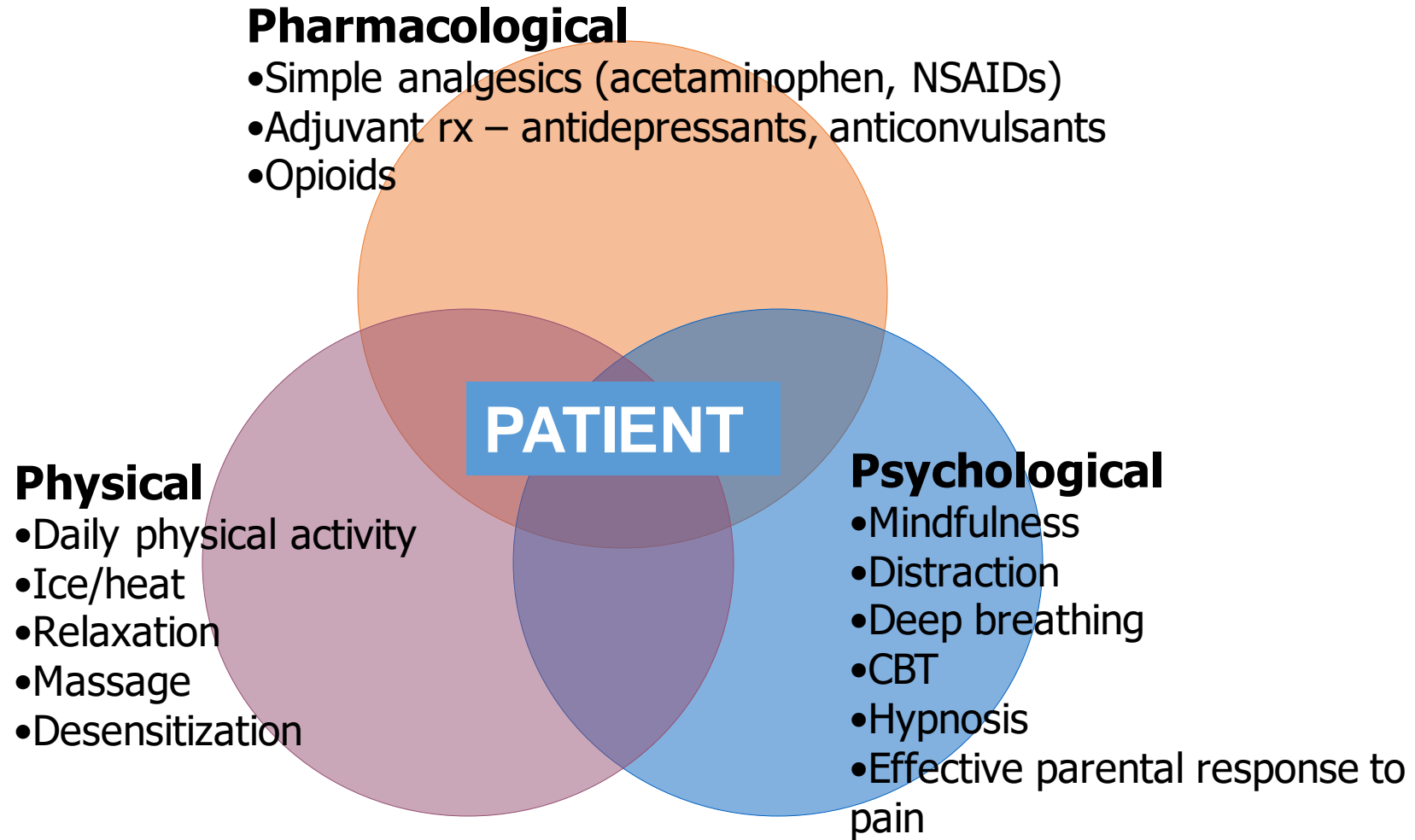
My child needs more rest because he has pain.

The more I do for my child, the faster she will recover.

My child should not be expected to resume normal activities until her pain is completely gone.


I should always know how much pain my child is experiencing.

Pain Management; The 3 'P's Approach



Important Message

Key Take-away Messages

- Pain in children is common and undertreated
 - Pain is undertreated due to lack of education, stigma, myths and misconceptions
 - Undertreated pain is associated with long-term impact on HRQL
 - Assessing and treating pain (using a 3'P' approach) matters!
- 



Questions: