RELAXATION: APPLICATION TO CHRONIC PAIN AND HOW TO TEACH PATIENTS

Prepared by:
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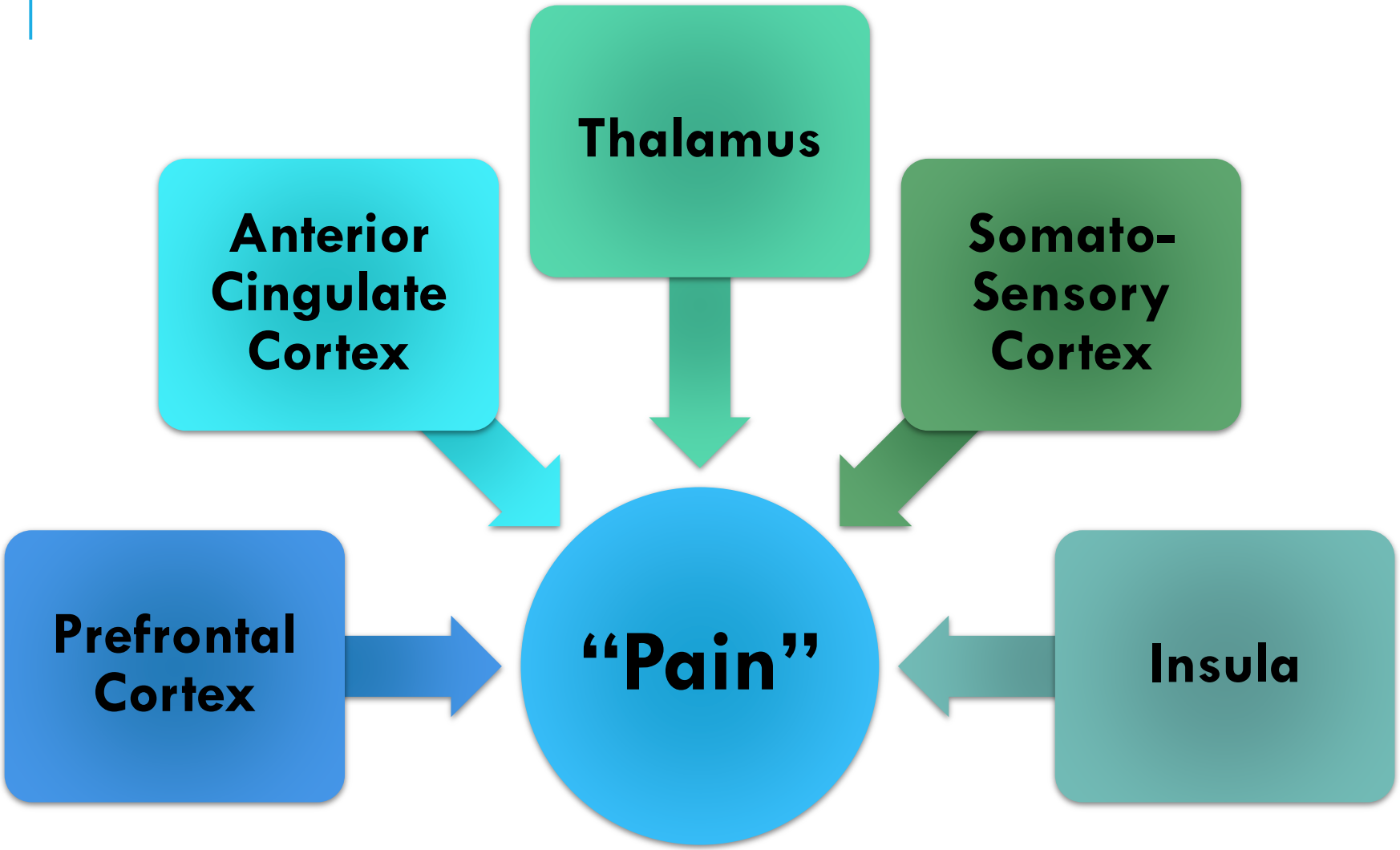
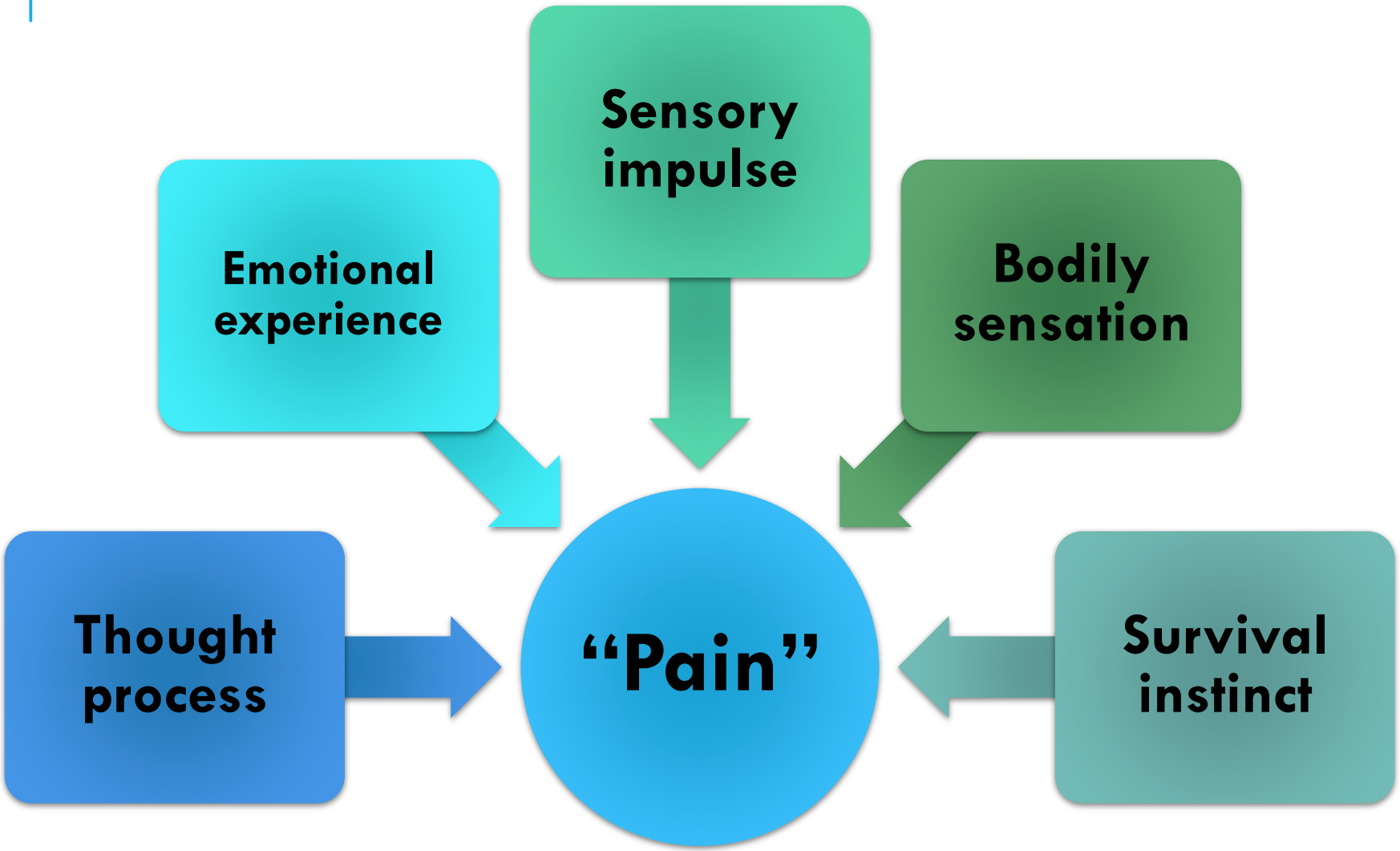
THE PAIN MATRIX

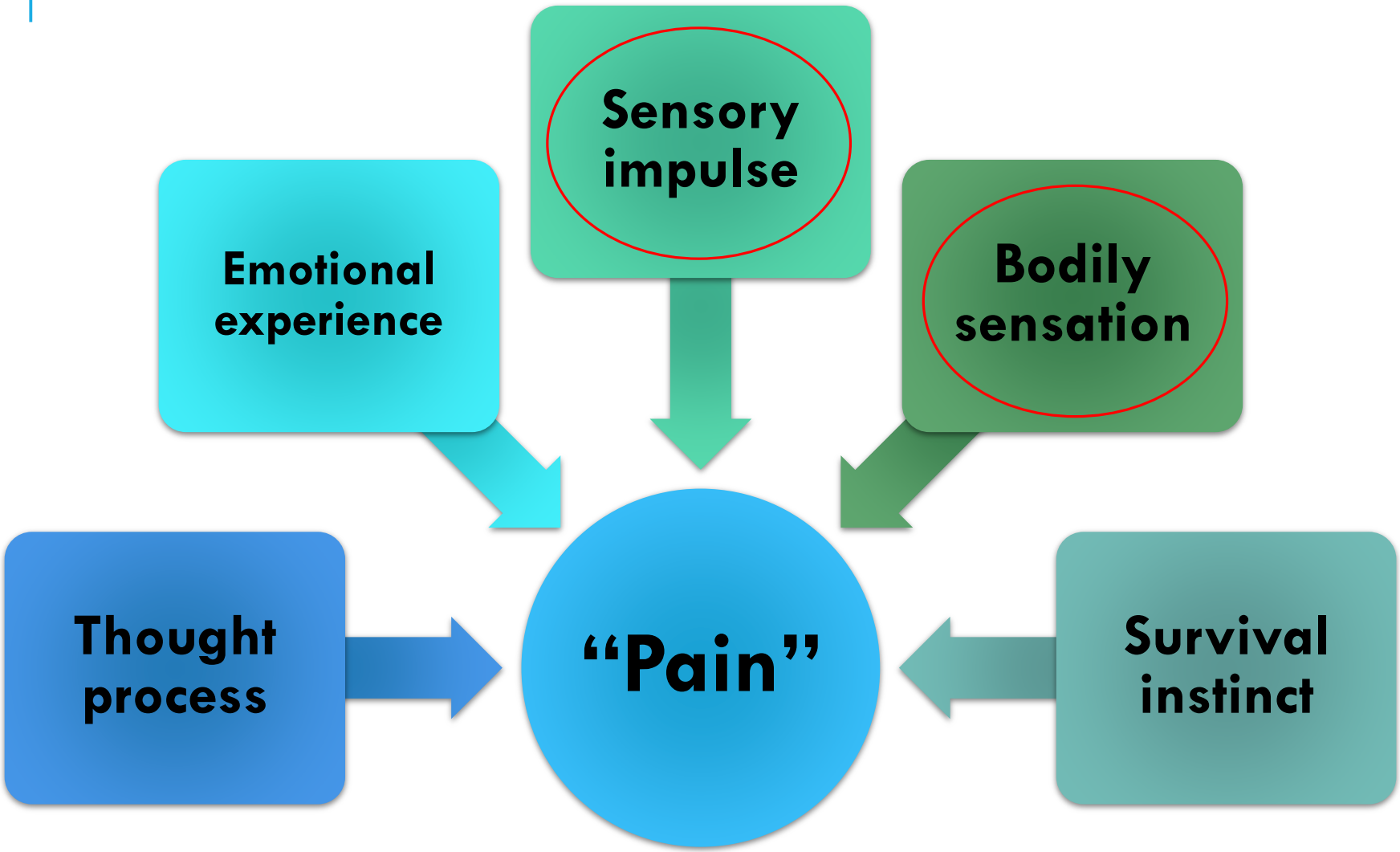


(Dillworth et al., 2012)

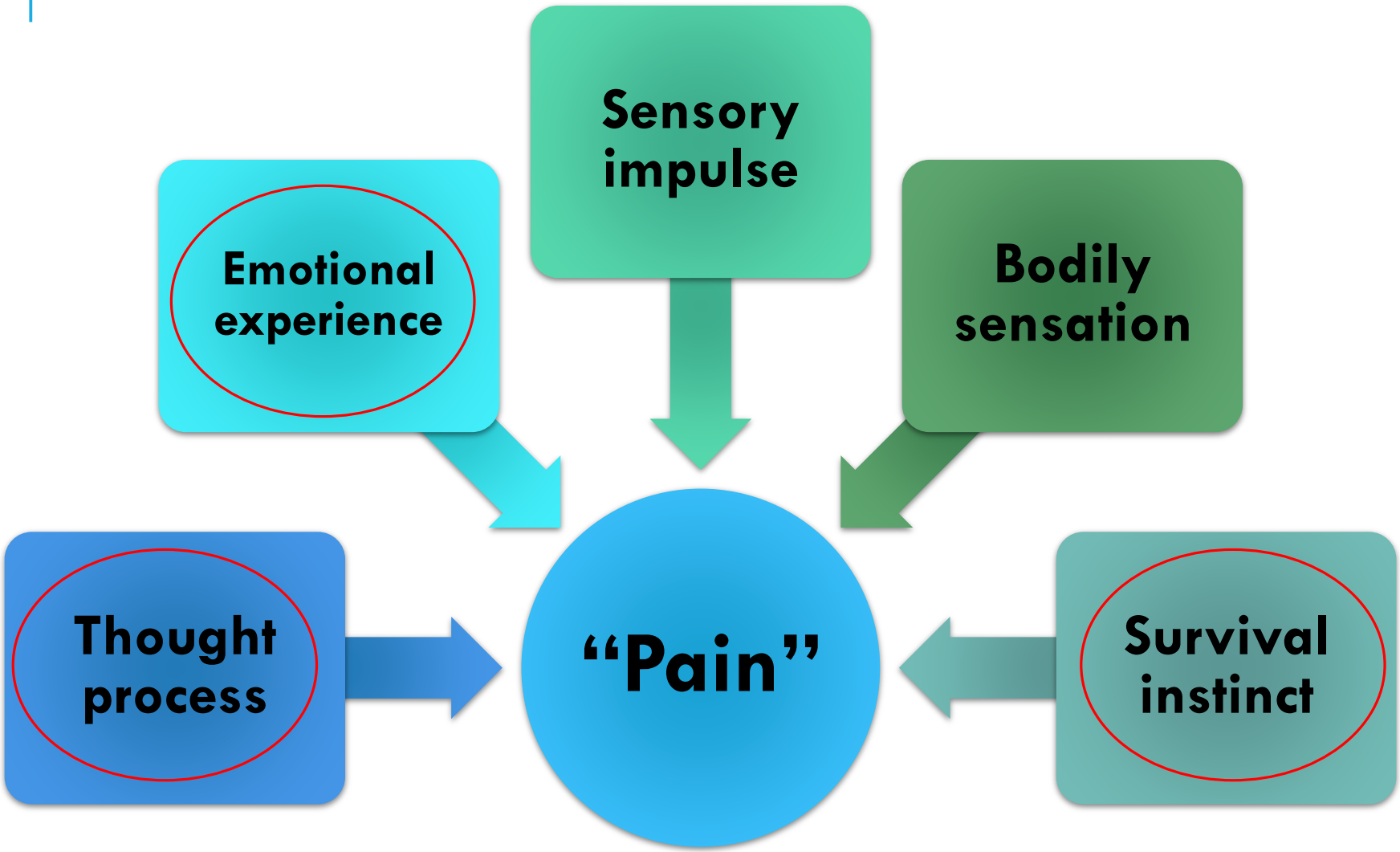
PAIN AS A COMPOSITE EXPERIENCE



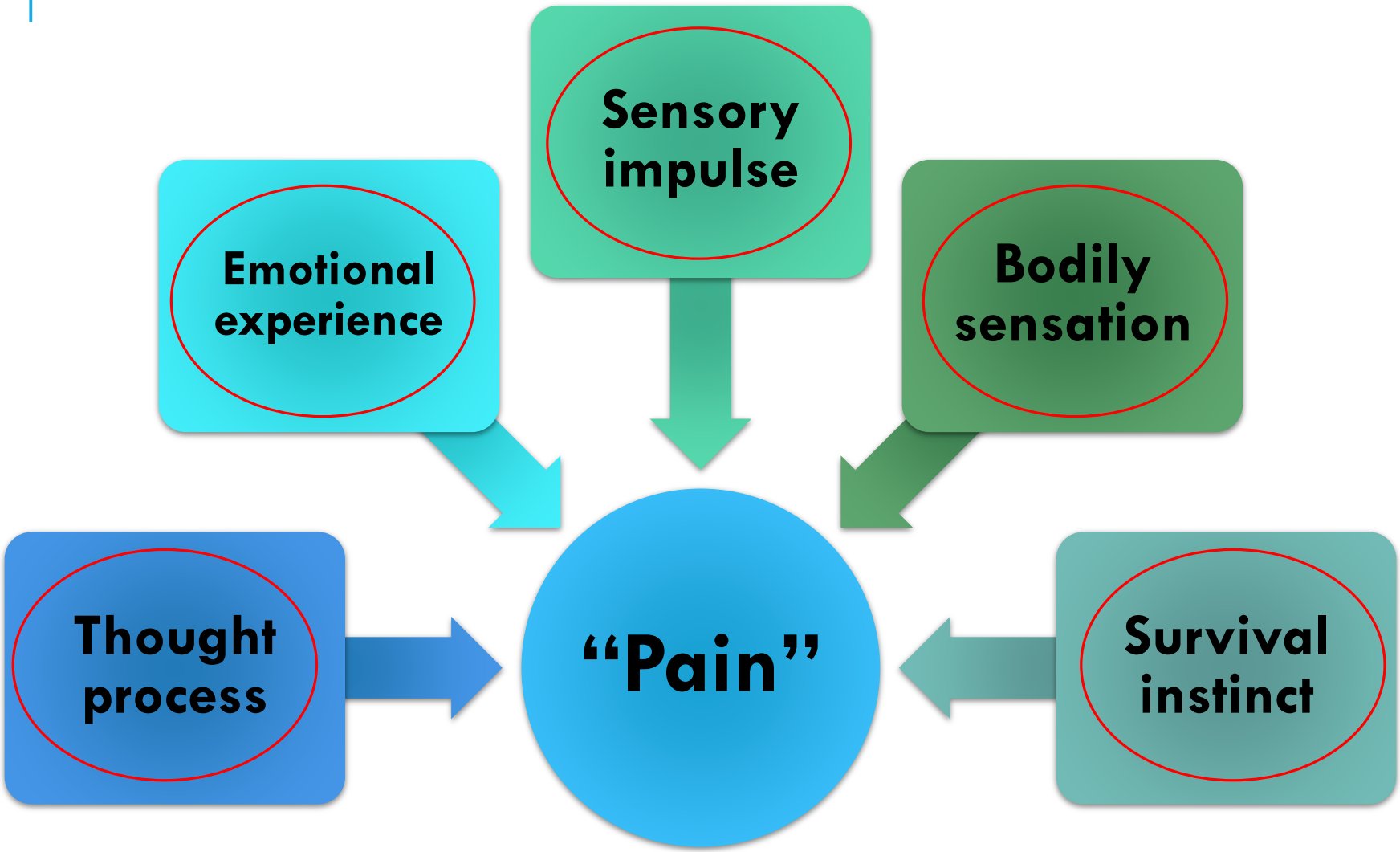
WAYS TO MANAGE PAIN



WAYS TO MANAGE PAIN



Relaxation training regulates all aspects of pain



TYPES OF RELAXATION TECHNIQUES

Deep breathing training

Progressive muscle relaxation

Focusing

Guided relaxation

Mindfulness relaxation

And many more…

BMC Psychiatry

BioMed Central

Research article

Open Access

Relaxation training for anxiety: a ten-years systematic review with meta-analysis

Gian Mauro Manzoni*[1,2], Francesco Pagnini[2], Gianluca Castelnuovo[1,3] and Enrico Molinari[1,3]

Examined different types of relaxation training for anxiety

- Progressive relaxation, autogenic training, applied relaxation, and meditation
- 27 studies included in the meta-analysis

Findings and conclusion

- Efficacy was higher for meditation, among healthy subjects, and for longer treatment
- Substantial variability in efficacy

Article

CLINICAL REHABILITATION

The effect of relaxation therapy on autonomic functioning, symptoms and daily functioning, in patients with chronic fatigue syndrome or fibromyalgia: a systematic review

Clinical Rehabilitation
2015, Vol. 29(3) 221–233

DOI: 10.1177/0269215514542635
cre.sagepub.com
SAGE

Examined effects on autonomic function, pain, fatigue, and daily functioning

- Guided imagery, applied relaxation, progressive muscle relaxation, others
- 13 randomized controlled trials

Findings and conclusion

- 6 studies found guided imagery to be efficacious for pain and daily functioning
- 2 studies reported immediate pain relief effect with guided imagery
- No evidence for other forms of relaxation on pain

Pain Medicine

Pain Medicine 2012; 13: 215–228
Wiley Periodicals, Inc.

PSYCHOLOGY, PSYCHIATRY & BRAIN NEUROSCIENCE SECTION

Original Research Articles

The Effect of Deep and Slow Breathing on Pain Perception, Autonomic Activity, and Mood Processing—An Experimental Study

Examined the effects of relaxation and respiration on pain perception, autonomic activity, and mood

- 16 healthy subjects

Findings

- Significant increase in pain thresholds from an **internally-paced** relaxation
- No significant changes in pain thresholds from an **externally-paced** relaxation

Externally-paced

- Breathe according to a respiratory feedback task
- Subjects are showed an ideal breathing curve on a monitor
- Requires attention and concentration to fit own respiration curve to the ideal curve

Internally-paced

- Direct awareness on the experience of breathing
- Look on a spot on a wall with their eyes open
- No visual control of performance
- Requires very little cognitive processing

WHICH IS THE MOST EFFECTIVE?

Deep breathing training

Progressive muscle relaxation

Focusing

Guided relaxation

Mindfulness relaxation

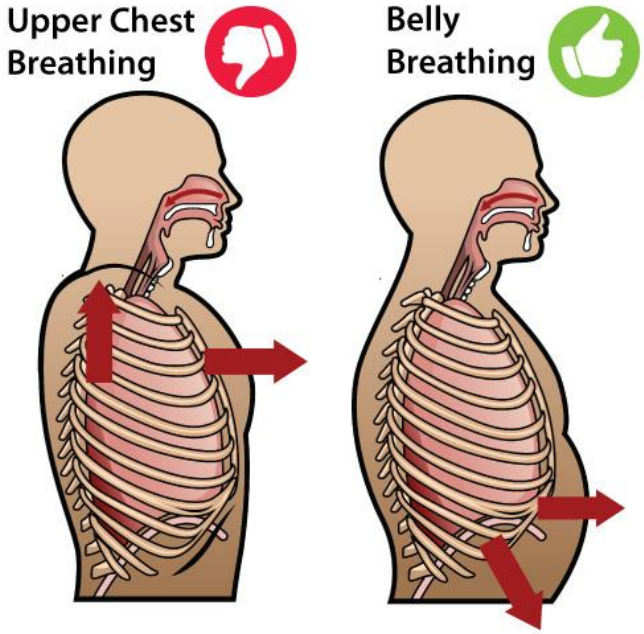
And many more…

Internal vs External

DEEP BREATHING

Also known as diaphragmatic breathing

- *Drawing deep breaths into the lungs, oxygenates and relaxes the body*
  - Decreases heart rate
  - Decreases blood pressure
  - Decreases perspiration
  - Relaxed



PROGRESSIVE MUSCLE RELAXATION

Muscle tightening as a response to sympathetic arousal

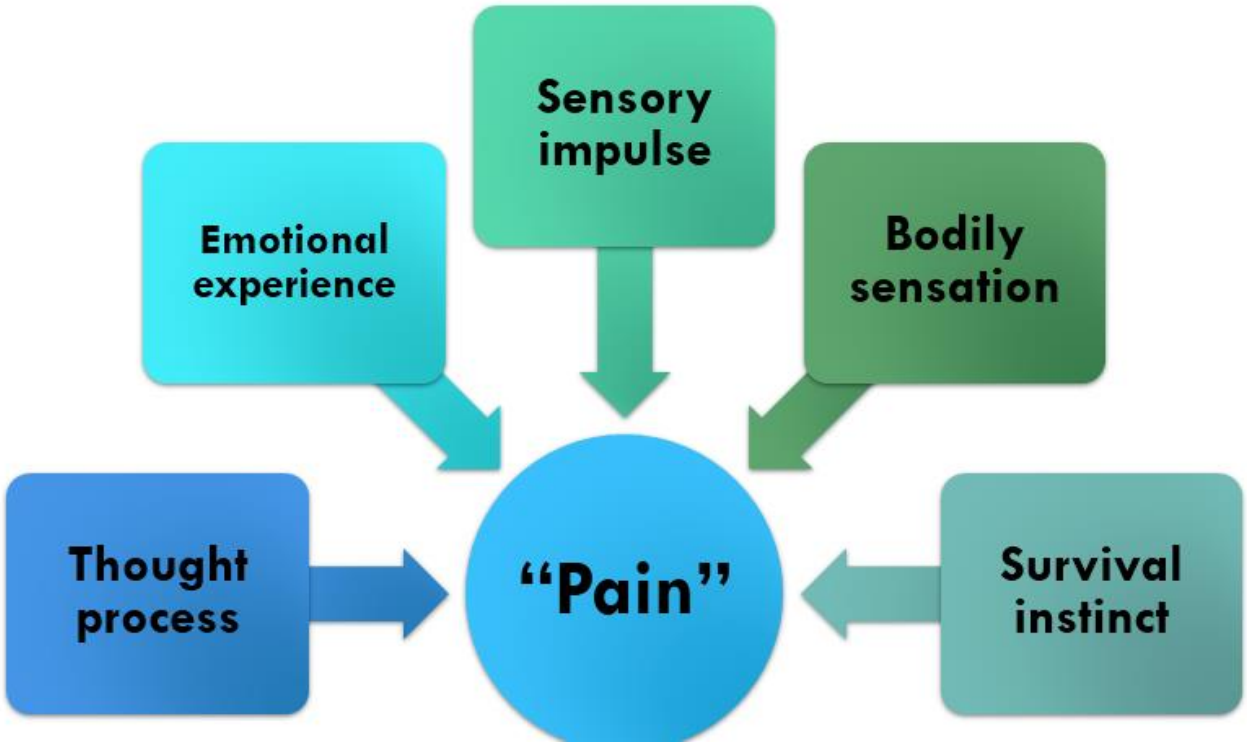
Tensing different muscle groups, then release

Focus is on the contrast between a tensed and a relaxed state

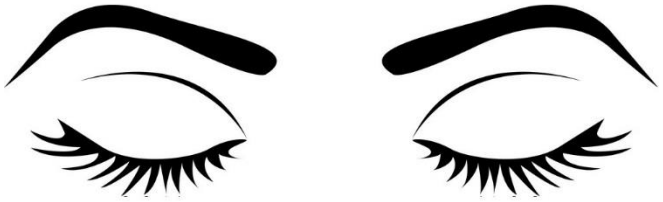
FOCUSING

Pain ≠ Negative emotion

Pain ≠ Negative thoughts



GUIDED RELAXATION



Visualizing the relaxation of each muscle group, rather than physical tensing and relaxing the muscles

Involves a clinician to provide verbal guidance and prompt

The clinician's voice and instructions may have an effect on the patient's response

MINDFULNESS RELAXATION

Observing and letting go of thoughts, emotions, and sensations that come into the mind

Refrain from resisting or fighting against negative thought, emotions, and sensations

Being present in the here and now

Suffering is often associated with past and future oriented thinking

CHALLENGES IN IMPLEMENTING RELAXATION

Skeptical. Many patient do not believe that it will work. They are often disappointed and demotivated by the techniques, especially when the effect is not 'obvious' (e.g. still have pain even after relaxation) as compared to medication that provides almost immediate pain relief.

Pain relief. Many patients focus too much on pain relief rather than other benefits of relaxation.

Misconception. Patients have misconception that relaxation equates to being pain-free.

Emotional. Some patients becomes anxious or agitated when they try hard to get it right.

Inconsistency. Many of them only practice when they have flare ups or in pain.

Technique	Considerations
Deep breathing	• Requires changing of breathing habit • Patients with abdominal pain may have difficulty following
Progressive muscle relaxation	• Patients will musculoskeletal pain may find it unpleasant (e.g. spasms)
Focusing	• Requires high level of emotional regulation and abstract understanding
Guided relaxation	• Requires the clinician to be skillful in providing verbal guidance
Mindfulness relaxation	• Requires patience and continuous practice • May have religious and spiritual connotation

FREQUENTLY ASKED QUESTIONS (FAQS)

1. I find it hard to relax when I'm in pain!
2. I tried relaxing, but it does not help!
3. Why am I still feeling pain after relaxation?
4. How do I know whether it's working?
5. How do I know if I'm relaxed?
6. How long do I need to practice relaxation for?
7. How frequent do I need to practice?
8. Does relaxation actually work?
9. I'm already relax, do I still need to practice relaxation techniques?

REFERENCE

Busch, V., Magerl, W., Kern, U., Haas, J., Hajak, G., & Eichhammer, P. (2012). The effect of deep and slow breathing on pain perception, autonomic activity, and mood processing - an experimental study. *Pain Medicine, 13*(2), 215-228.

Manzoni, G. M., Pagnini, F., Castelnuovo, G., & Molinari, E. (2008). Relaxation training for anxiety: a ten-years systematic review with meta-analysis. *BMC psychiatry, 8*(1), 41.

Meeus, M., Nijs, J., Vanderheiden, T., Baert, I., Descheemaeker, F., & Struyf, F. (2015). The effect of relaxation therapy on autonomic functioning, symptoms and daily functioning, in patients with chronic fatigue syndrome or fibromyalgia: A systematic review. *Clinical rehabilitation, 29*(3), 221-233.