

# Multi-dimensional Pain Assessment and Psychosocial Interventions

MiCCSI

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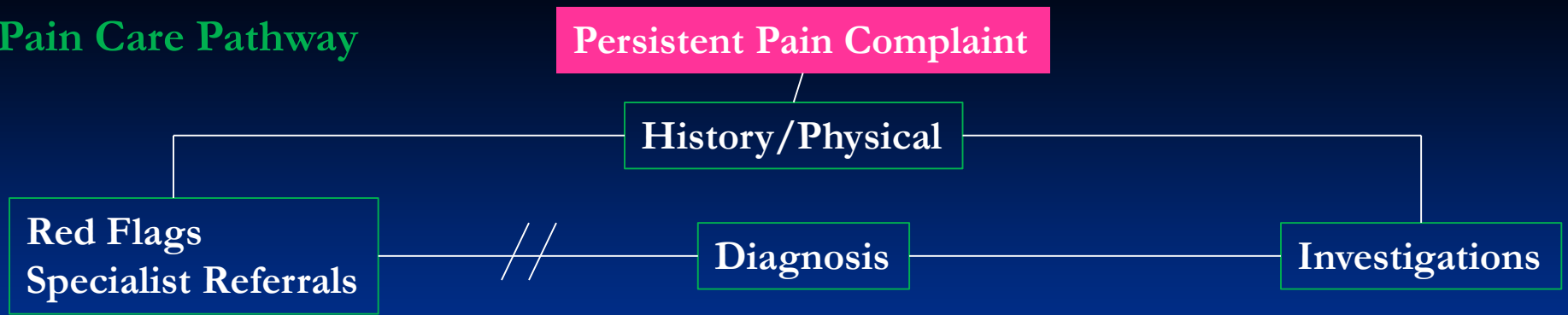
# Disclosures

- Consultant to Community Health Focus Inc.
- President of the American Pain Society
- Chair of Steering Committee reviewing grants for APS sponsored by Pfizer
- Funded for research by NIH

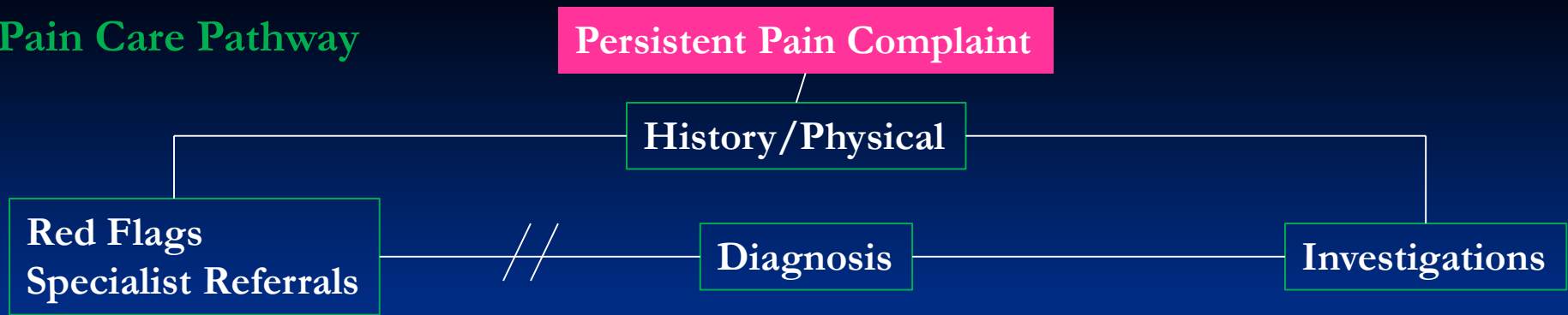
There will be no use of off-label medications in this presentation.



# Pain Care Pathway

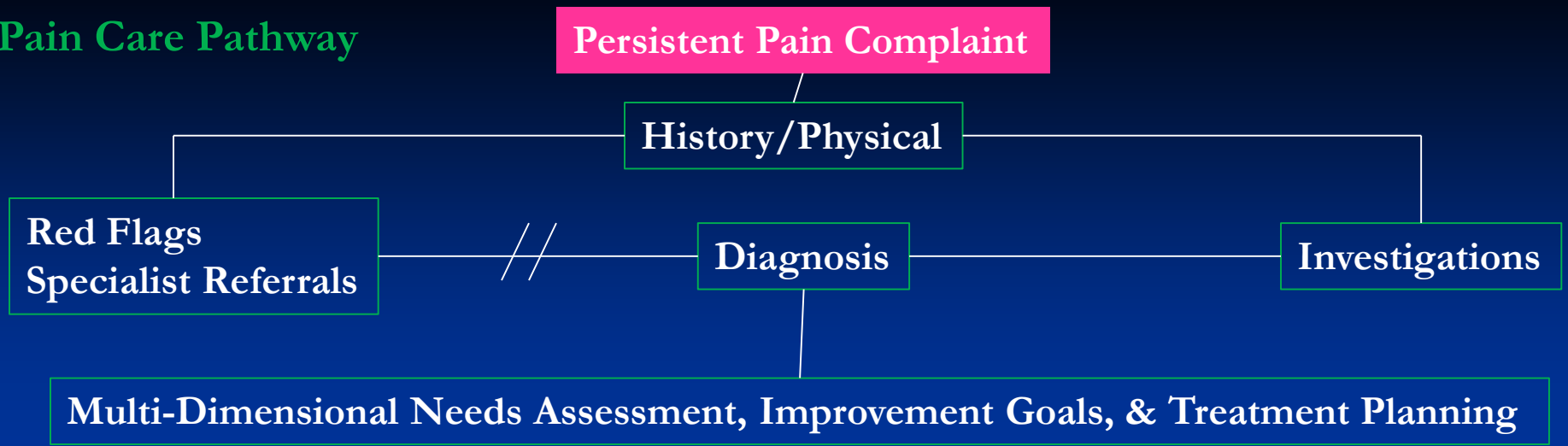


## Pain Care Pathway

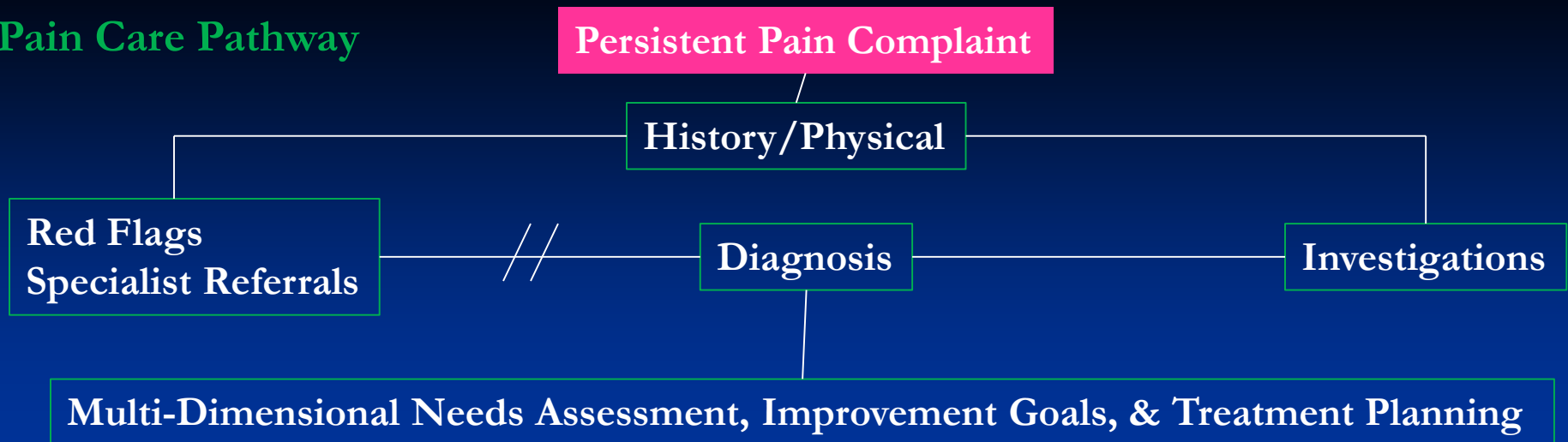


- **65 y/o Female**
- **Retired**
- **R-KOA**
- **Possible FM**

# Pain Care Pathway



# Pain Care Pathway



- 65 y/o Female
- Retired
- R-KOA
- Possible FM

**What medications is she on?**

**What is the intensity and distribution of pain?**

**Is she sleeping well?**

**Is she happy to be retired? Anxious?**

**What does she do during the day  
now that she's retired?**

**Who does she enjoy being with?**

**What can't she accomplish?**

# Traditional Pain Assessment

## **Pain**

Intensity

Location, Quality

Distribution

Temporality



# Intensity

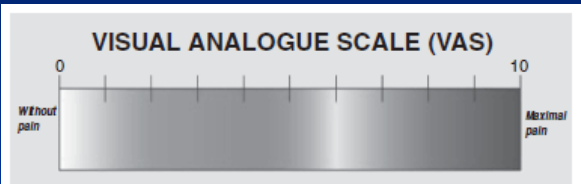
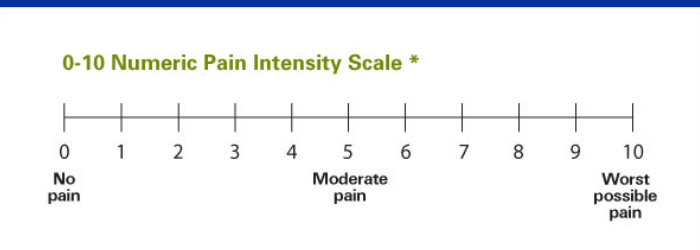
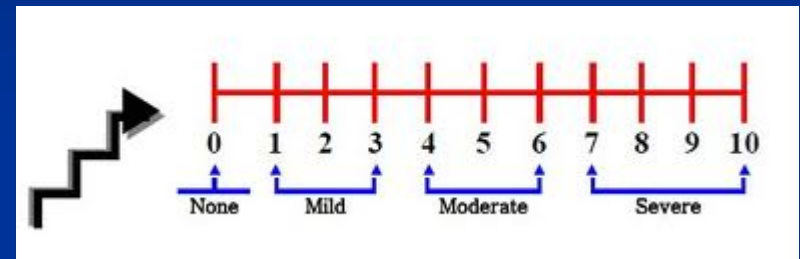


Figure 1. Visual Analogue Scale used to measure Pain.

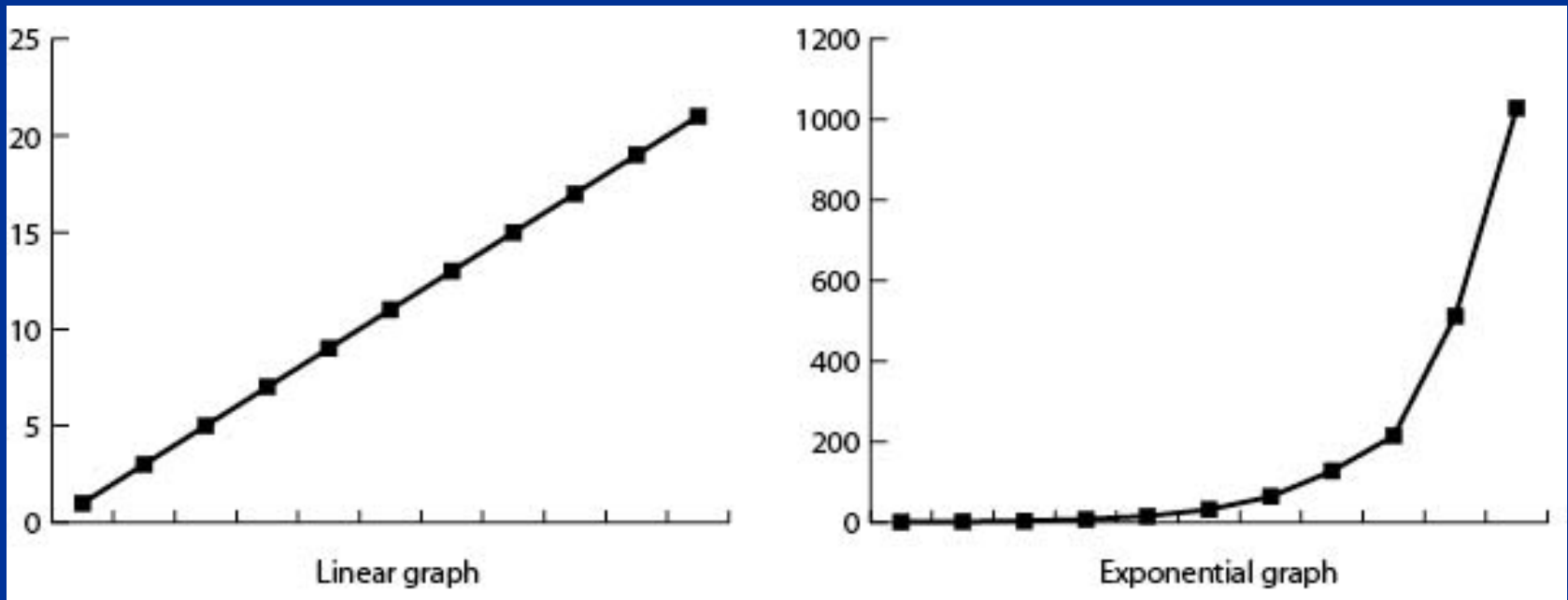


## Verbal Rating Scale: Discomfort Rating

- 0- Pain or Discomfort - none
- 1- Pain or Discomfort - I am aware of it, I think about it
- 2- Pain or Discomfort - I am aware of it, I think about it but I can ignore it at times.
- 3- Pain or Discomfort - I can't ignore it, but I can do my usual activities.
- 4- Pain or Discomfort - It is difficult for me to concentrate; I can only do easy activities.
- 5- Pain or Discomfort - Such that I cant do anything.



# Psychophysical events like sensory perception and pain follow exponential curves



# 0-10 point NRS for pain

CCT



No Pain

Worst Pain



IRT


# Brief Pain Inventory

**Brief Pain Inventory (Short Form)**


1. Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?  
 Yes  No

2. On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.

**Front**



**Back**



3. Please rate your pain by marking the box beside the number that best describes your pain at its **worst** in the last 24 hours.  
 0  1  2  3  4  5  6  7  8  9  10  
No Pain Pain As Bad As You Can Imagine

4. Please rate your pain by marking the box beside the number that best describes your pain at its **least** in the last 24 hours.  
 0  1  2  3  4  5  6  7  8  9  10  
No Pain Pain As Bad As You Can Imagine

5. Please rate your pain by marking the box beside the number that best describes your pain on the **average**.  
 0  1  2  3  4  5  6  7  8  9  10  
No Pain Pain As Bad As You Can Imagine

6. Please rate your pain by marking the box beside the number that tells how much pain you have **right now**.  
 0  1  2  3  4  5  6  7  8  9  10  
No Pain Pain As Bad As You Can Imagine

7. What treatments or medications are you receiving for your pain?  


8. In the last 24 hours, how much relief have pain treatments or medications provided? Please mark the box below the percentage that most shows how much **relief** you have received.  
0%  10%  20%  30%  40%  50%  60%  70%  80%  90%  100%  
No Relief Complete Relief

9. Mark the box beside the number that describes how, during the past 24 hours, pain has interfered with you:

**A. General Activity**  
 0  1  2  3  4  5  6  7  8  9  10  
Does Not Interfere Completely Interferes

**B. Mood**  
 0  1  2  3  4  5  6  7  8  9  10  
Does Not Interfere Completely Interferes

**C. Walking ability**  
 0  1  2  3  4  5  6  7  8  9  10  
Does Not Interfere Completely Interferes

**D. Normal Work (includes both work outside the home and housework)**  
 0  1  2  3  4  5  6  7  8  9  10  
Does Not Interfere Completely Interferes

**E. Relations with other people**  
 0  1  2  3  4  5  6  7  8  9  10  
Does Not Interfere Completely Interferes

**F. Sleep**  
 0  1  2  3  4  5  6  7  8  9  10  
Does Not Interfere Completely Interferes

**G. Enjoyment of life**  
 0  1  2  3  4  5  6  7  8  9  10  
Does Not Interfere Completely Interferes

**painDETECT** PAIN QUESTIONNAIRE

Date: \_\_\_\_\_ Patient: Last name: \_\_\_\_\_ First name: \_\_\_\_\_

How would you assess your pain now, at this moment?  
 0 1 2 3 4 5 6 7 8 9 10  
 none max.

How strong was the **strongest** pain during the past 4 weeks?  
 0 1 2 3 4 5 6 7 8 9 10  
 none max.

How strong was the pain during the past 4 weeks **on average**?  
 0 1 2 3 4 5 6 7 8 9 10  
 none max.

Select the picture that best describes the pain you experience:

	Persistent pain with slight fluctuations	<input type="checkbox"/>
	Persistent pain with pain attacks	<input type="checkbox"/>
	Pain attacks without pain between them	<input type="checkbox"/>
	Pain attacks with pain between them	<input type="checkbox"/>

Please mark your main area of pain

Does your pain radiate to other regions of your body? yes  no   
 If yes, please draw the direction in which the pain radiates.

Do you suffer from a burning sensation (e.g., stinging nettles) in the marked areas?  
 never  hardly noticed  slightly  moderately  strongly  very strongly

Do you have a tingling or prickling sensation in the area of your pain (like crawling ants or electrical tingling)?  
 never  hardly noticed  slightly  moderately  strongly  very strongly

Is light touching (clothing, a blanket) in this area painful?  
 never  hardly noticed  slightly  moderately  strongly  very strongly

Do you have sudden pain attacks in the area of your pain, like electric shocks?  
 never  hardly noticed  slightly  moderately  strongly  very strongly

Is cold or heat (bath water) in this area occasionally painful?  
 never  hardly noticed  slightly  moderately  strongly  very strongly

Do you suffer from a sensation of numbness in the areas that you marked?  
 never  hardly noticed  slightly  moderately  strongly  very strongly

Does slight pressure in this area, e.g., with a finger, trigger pain?  
 never  hardly noticed  slightly  moderately  strongly  very strongly

(To be filled out by the physician)

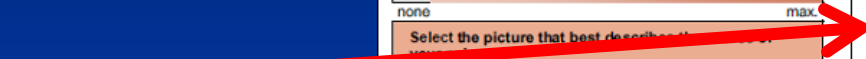
never	hardly noticed	slightly	moderately	strongly	very strongly
x 0 = 0	x 1 =	x 2 =	x 3 =	x 4 =	x 5 =

Total score    out of 35

Intensity



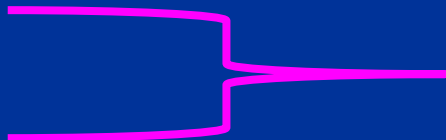
Distribution



Temporality



Quality



# EMA Pain

## Ex : Pain Diary

### MONITORING PAIN DIARY

#### Instructions:

1. Keep a record of any pain you experience during any of the following periods with a 7 day diary.
2. Record how intense your pain was by rating it on a scale of 1 to 10 (1=not very painful to 10=highly painful).
3. Record what you were doing or the situation you were in when you experienced the pain.
4. Record your thoughts at the time of experiencing the pain.

This will help you to develop more awareness about your experiences of physical pain to help you identify strategies and techniques to help manage pain.

DAY	Brief description of type of pain	RATE 1-10	Situation/What you were doing	What you were thinking at the time	
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

#### Question 8

How much pain are you experiencing right now?

(0 to 10)

2



No pain

Pain as bad as you can imagine

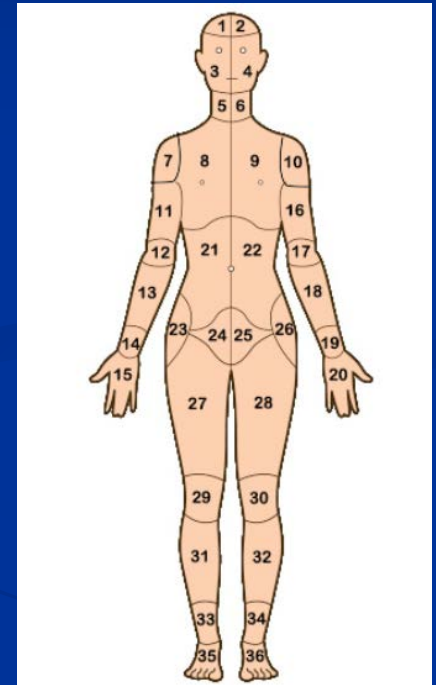
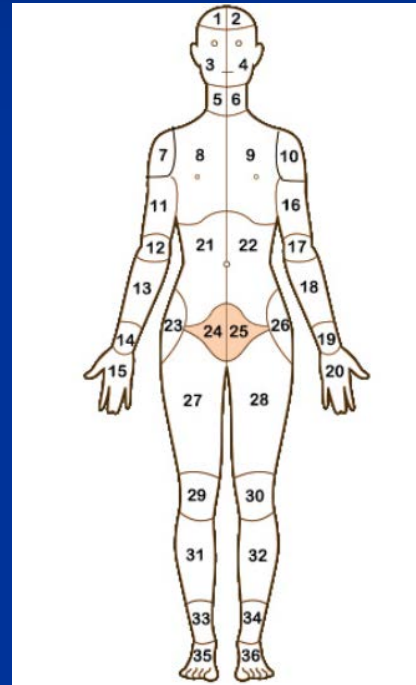
BACK

NEXT

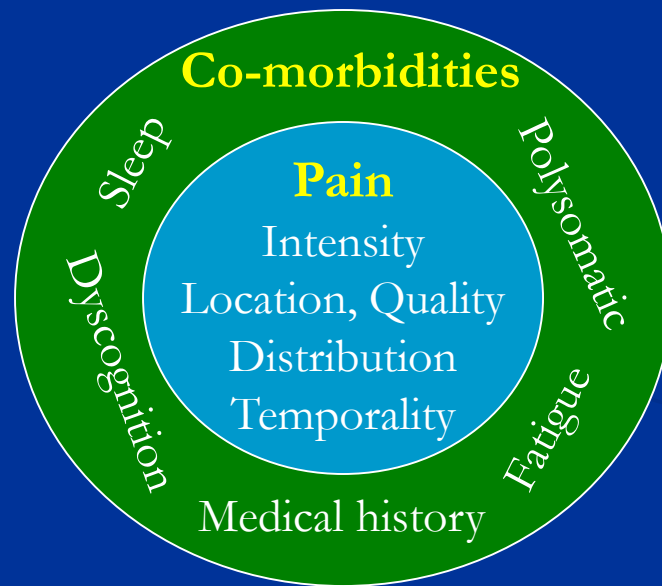


# Focal vs Wide-Spread Pain

- Body Maps
- Assess for local Vs. Wide-spread pain
- In IC, only 19% focal



# Domains of Pain Assessment





# Common Characterization

- Demographics
- Family History
- Diagnostics
  - Specific to the complaint
  - COPCs
  - Substances
    - Opioids and opioids follow-up (phone)
    - Benzodiazepine
    - Cannabis
    - Concomitant Medications

## Medical History

- Demographics
- Co-morbid medical conditions
- Current Treatments
- Medical History
- Family History

## Fatigue

- Multidimensional Fatigue
  - MFI<sup>6</sup>
  - PROMIS<sup>1</sup>

## Sleep

- Sleep Disturbances
  - PROMIS<sup>1</sup>
  - MOS<sup>2</sup>
  - PSQI<sup>3</sup>
- Sleep-related Impairment
  - PROMIS<sup>1</sup>

## Dyscognition

- Perceived Problems
  - MASQ<sup>4</sup>
  - MISCI<sup>5</sup>

## Polysomatic Burden

- PILL<sup>7</sup>
- CMSI<sup>8</sup>
- FMness<sup>9</sup>
- CSI<sup>10</sup>

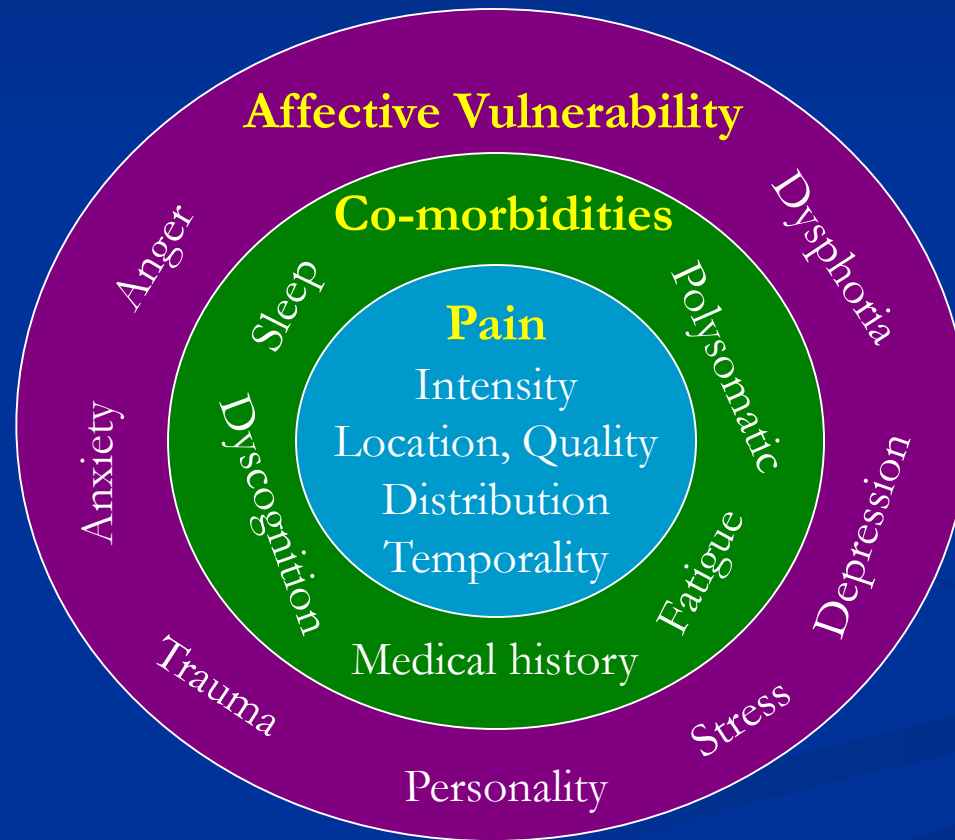
**Sleep:** <sup>1</sup>Cella D, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. *J Clin Epidemiol.* 2010;63(11):1179-94. <sup>2</sup>Allen RP, et al. Psychometric evaluation and tests of validity of the Medical Outcomes Study 12-item Sleep Scale (MOS sleep). *Sleep medicine.* 2009;10(5):531-9. <sup>3</sup>Buysse,D.J. et al. (1989). The Pittsburgh Sleep Quality Index (PSQI): A new instrument for psychiatric research and practice. *Psychiatry Research*, 28(2), 193-213. The detailed scoring instructions are at the end of this journal article.

**Dyscognition:** <sup>4</sup>Seidenberg M. et al. Development and validation of a Multiple Ability Self-Report Questionnaire. *Journal of Clinical & Experimental Neuropsychology.* 1994;16(1):93-104.; <sup>5</sup>Kratz AL, et al. Development and Initial Validation of a Brief Self-Report Measure of Cognitive Dysfunction in Fibromyalgia. *The J Pain*, 2015.

**Fatigue:** <sup>6</sup>Smets EM, et al. The Multidimensional Fatigue Inventory (MFI) psychometric qualities of an instrument to assess fatigue. *Journal of Psychosomatic Research* 1995;39:315-25.

**Polysomatic burden:** <sup>7</sup>Pennebaker JW. *The psychology of physical symptoms.* New York, New York: Springer-Verlag; 1982.; <sup>8</sup>Williams DA, et al. Advances in the assessment of fibromyalgia. *Rheum Dis Clin North Am* 2009;35:339-57.; <sup>9</sup>Wolfe F, et al. Fibromyalgia criteria and severity scales for clinical and epidemiological studies: a modification of the ACR Preliminary Diagnostic Criteria for Fibromyalgia. *J Rheumatol* 2011;38:1113-22. <sup>10</sup>Mayer TG, et al. The development and psychometric validation of the central sensitization inventory. *Pain practice* 2012;12(4):276-85.

# Domains of Pain Assessment



# Affect and Chronic Pain

## IASP Definition of Pain:

An unpleasant *sensory and emotional* experience associated with actual or potential tissue damage or described in terms of such damage<sup>1</sup>

## Affective Vulnerability:

Highly predictive of first onset of chronic pain (e.g., TMD).<sup>2</sup>

## Neuroimaging Findings:

Compared to acute pain, chronic pain appears more like an emotional event than a sensory event.<sup>3,4</sup>

<sup>1</sup>IASP Pain Terminology. International Association for the Study of Pain Website. [http://www.iasp-pain.org/AM/Template.cfm?Section=Pain\\_Definitions&Template=/CM/HTMLDisplay.cfm&ContentID=1728#Pain](http://www.iasp-pain.org/AM/Template.cfm?Section=Pain_Definitions&Template=/CM/HTMLDisplay.cfm&ContentID=1728#Pain). Updated 2007. Accessed January 6, 2011; <sup>2</sup>Fillingim et al, Psychological factors associated with development of TMD: the OPPERA prospective cohort study. *J Pain*, 14(12 supp2), 2013:T75-T90; <sup>3</sup>Hashmi JA, et al, Shape shifting pain: chronification of back pain shifts brain representation from nociceptive to emotional circuits. *Brain*, 2013;136(Pt 9):2751-68; <sup>4</sup>Denk F, McMahon SB, Tracey I. Pain vulnerability: a neurobiological perspective. *Nature neuroscience*. 2014;17(2):192-200.

## Negative Affect

- Depression/Dysphoria
  - CES-D<sup>1</sup>
  - PHQ-9<sup>2</sup>
  - PROMIS<sup>3</sup>
- Anxiety
  - STAI<sup>4</sup>
  - GAD-7<sup>5</sup>
  - PROMIS<sup>3</sup>
- Anger
  - STAXI<sup>6</sup>
  - PROMIS<sup>3</sup>

## Trauma/Stress

- Trauma
  - CTES/RTES<sup>7</sup>
- Stress
  - PSS<sup>8</sup>

## Personality

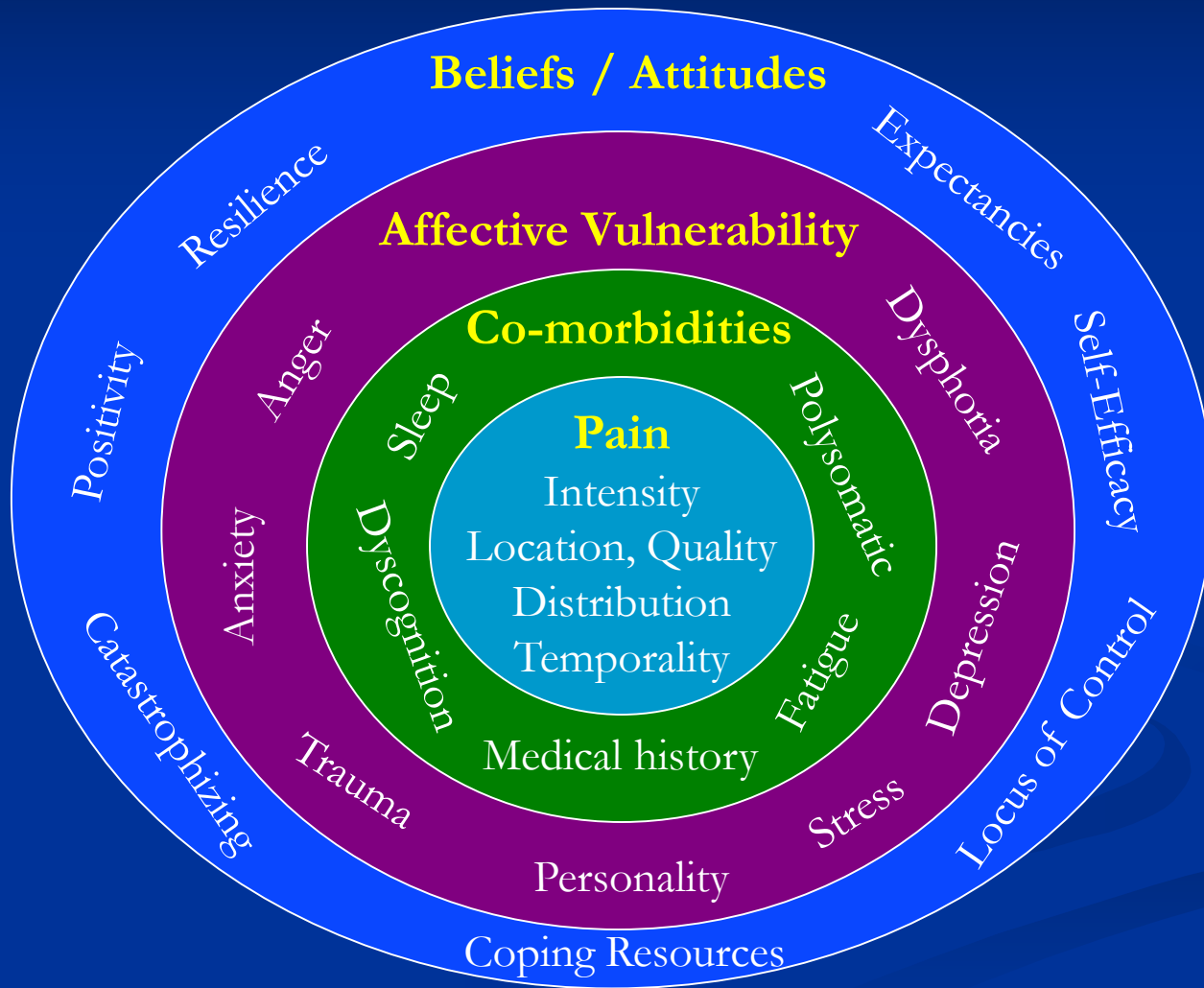
- 5 Factor Model
  - Neuroticism
  - Extroversion
  - Openness
  - Conscientiousness
  - Agreeableness
- IPIP<sup>9</sup>
- TIPI<sup>10</sup>

**Negative Affect:** <sup>1</sup>Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement* 1977;1:385-401. <sup>2</sup>Kroenke K, et al. The PHQ-9: validity of a brief depression severity measure. *JGenInternMed.* 2001;16(9):606-13. <sup>3</sup>Cella D, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. *J Clin Epidemiol.* 2010;63(11):1179-94. <sup>4</sup>Spielberger CD, et al. Assessment of state and trait anxiety. *Anxiety: psychobiological and clinical perspectives.* Washington: Hemisphere/Taylor and Francis; 1991:69-83. <sup>5</sup>Spitzer RL et al. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine.* 2006;166(10):1092-7. <sup>6</sup>Spielberger CD. STAXI-2: State-Trait Anger Expression Inventory - 2. Professional Manual. Odessa, FL: Psychological Assessment Resources (PAR), Inc.; 1999.

**Trauma:** <sup>7</sup>Pennebaker JW, et al. Disclosure of traumas and psychosomatic processes. *SocSciMed.* 1988;26(3):327-32.; <sup>8</sup>Cohen S, et al. A global measure of perceived stress. *JHealth SocBehav.* 1983;24(4):385-96.

**Personality:** <sup>9</sup>Goldberg, L. R., et al. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality, 40,* 84-96.; <sup>10</sup>Gosling, S. D., et al. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality, 37,* 504-528.

# Domains of Pain Assessment



## Pain Beliefs

- Multi-component
  - SOPA<sup>1</sup>
  - PBPI<sup>2</sup>
  - BBCA<sup>3</sup>
- Locus of Control
  - BPCQ<sup>4</sup>

## Coping Resources

- Coping Strategies
  - CSQ<sup>5</sup>
  - CPCI<sup>6</sup>
- Catastrophizing
  - PCS<sup>7</sup>
- Self-Efficacy
  - PSE<sup>8</sup>

## Expectancies

- Treatment Expectancy and credibility
  - TEC<sup>9</sup>

**Beliefs:** <sup>1</sup>Jensen MP, et al. Relationship of pain-specific beliefs to chronic pain adjustment. *Pain*. 1994;57(3):301-9.; <sup>2</sup>Williams DA. et al., Pain beliefs: Assessment and utility. *Pain*. 1994;59(1):71-8. <sup>3</sup>Jensen MP, et al. One- and two-item measures of pain beliefs and coping strategies. *Pain*. 2003;104(3):453-69. <sup>4</sup>Skevington SM. A standardized scale to measure beliefs about controlling pain (BPCQ): A preliminary study. *Psychology and Health* 1990;4:221-32.

**Coping:** <sup>5</sup>Rosenstiel AK, Keefe FJ. The use of coping strategies in chronic low back pain patients: Relationship to patient characteristics and current adjustment. *Pain* 1983;17:33-44; <sup>6</sup>Jensen MP, et al. The Chronic Pain Coping Inventory: development and preliminary validation. *Pain*. 1995;60(2):203-16. <sup>7</sup>Sullivan M, et al.. The Pain Catastrophizing Scale: Development and validation. *Psychological Assessments* 1995;7:524-32. <sup>8</sup>Lorig K, et al. Development and evaluation of a scale to measure perceived self-efficacy in people with arthritis. *Arthritis & Rheumatism* 1989;32:37-44.

**Expectancies:** <sup>9</sup>Smeets RJ, et al., Treatment expectancy and credibility are associated with the outcome of both physical and cognitive-behavioral treatment in chronic low back pain. *The Clinical journal of pain*. 2008;24(4):305-15.

## Resilience and Positive Affect

- Positive/Negative Affect
  - PANAS<sup>1</sup>
- Affect Balance<sup>2</sup>
- Hardiness
- Grit
  - Short Grit Scale<sup>3,4</sup>
- Optimism
- Determination/courage
- Satisfaction with life
  - SWL<sup>5</sup>
- Benefit Finding
- Gratitude
- Forgiveness
- Subjective Well-being
  - SWBS<sup>6</sup>
  - PROMIS Affect/Well-being<sup>7</sup>
- Sense of Coherence

## Acceptance

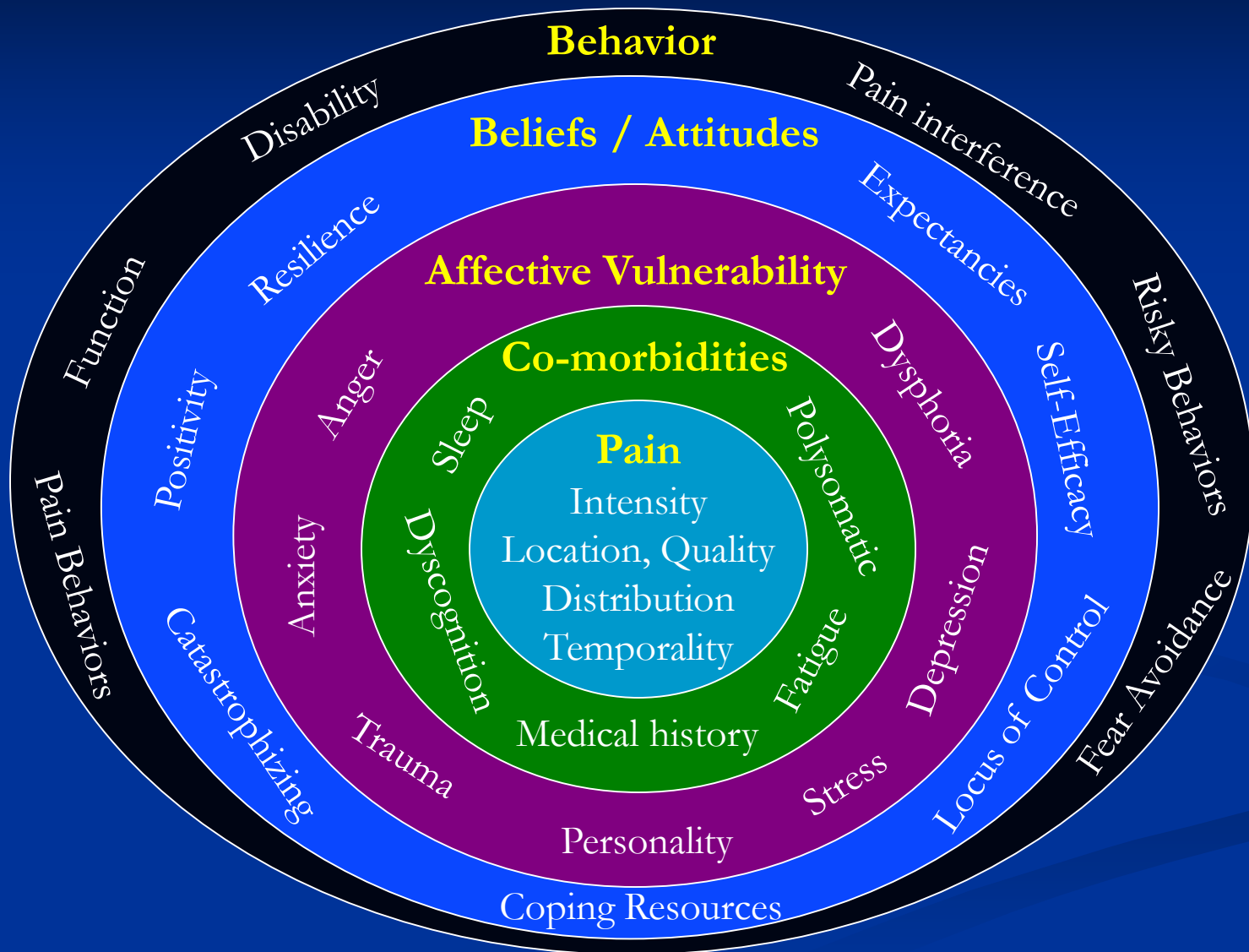
- CPAQ

**Resilience and Positive Affect:** <sup>1</sup>Watson D. et al. Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality & Social Psychology* 1988;54:1063-70. <sup>2</sup>Hassett AL, et al. The relationship between affect balance style and clinical outcomes in fibromyalgia. *Arthritis and Rheumatism*. 2008;59(6):833-40. <sup>3</sup>Duckworth AL, et al, Grit: perseverance and passion for long-term goals. *Journal of personality and social psychology*. Jun 2007;92(6):1087-1101. <sup>4</sup>Duckworth AL, et al. Development and validation of the short grit scale (grit-s). *Journal of personality assessment*. Mar 2009;91(2):166-174. <sup>5</sup>Diener E, et al. The Satisfaction With Life Scale. *Journal of personality assessment*. Feb 1985;49(1):71-75. <sup>6</sup>Diener E. *Assessing Well-Being: The Collected Works of Ed Diener*. New York: Springer; 2009. <sup>7</sup>Cella D, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. *J Clin Epidemiol*. 2010;63(11):1179-94

**Acceptance:** Fish RA, et al. Validation of the chronic pain acceptance questionnaire (CPAQ) in an Internet sample and development and preliminary validation of the CPAQ-8. *Pain*. 2010;149(3):435-43.



# Domains of Pain Assessment



## Functioning

- Multidimensional Functioning
  - SF-36<sup>1</sup>
  - WHO-DAS 2.0<sup>2</sup>
- Pain Interference
  - BPI<sup>3</sup> (interference)
- Disability
  - PDI<sup>4</sup>

## Pain Behaviors

- PROMIS<sup>5</sup>

## Fear Avoidance

- TSK<sup>6</sup>

## Health Risk Behaviors

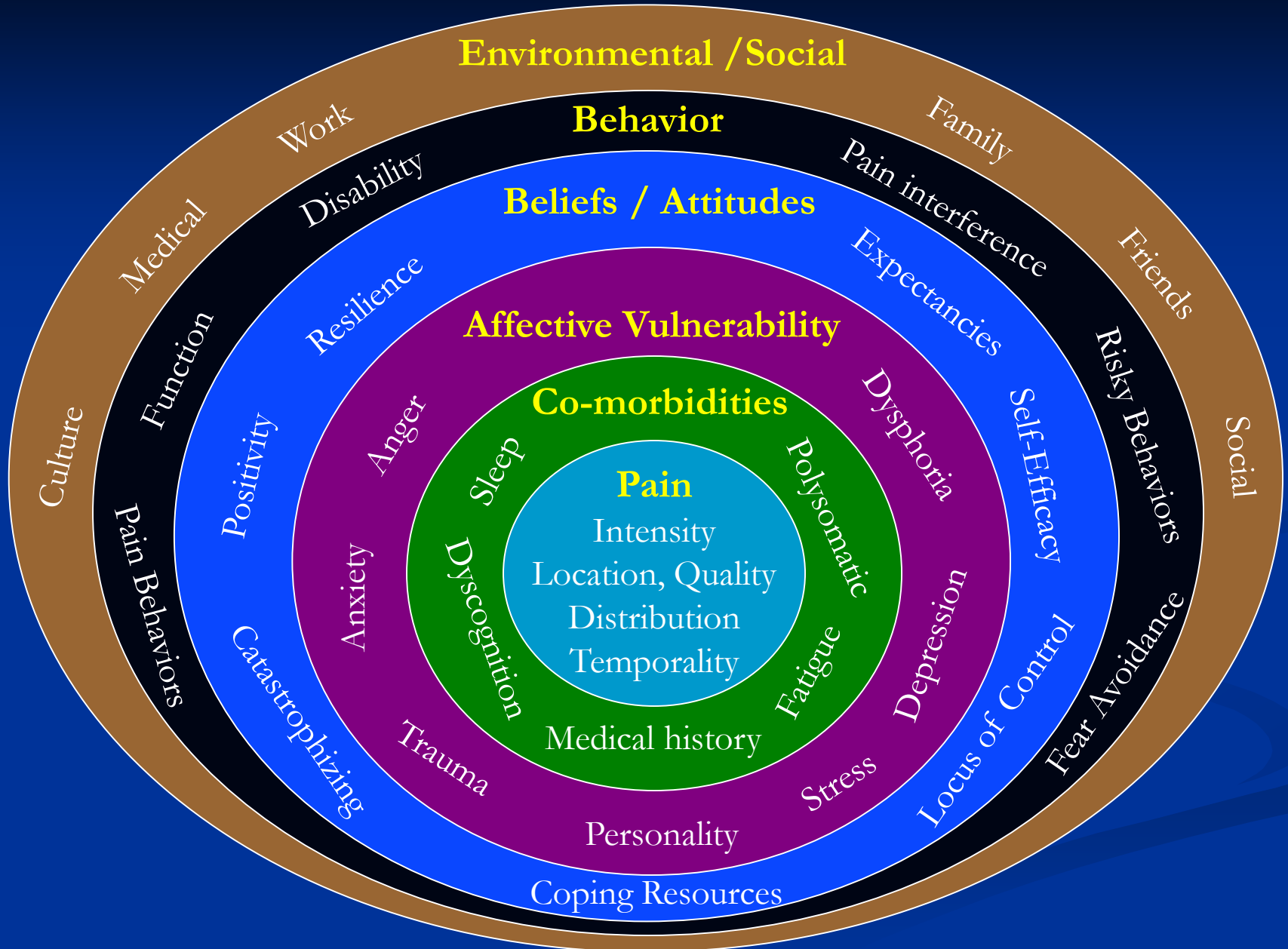
- Smoking<sup>7</sup>
- Alcohol<sup>8</sup>
- Recreational drugs<sup>9</sup>

**Functional Status:** <sup>1</sup>Ware JE, et al. How to Score Version Two of the SF-36r Health Survey. Lincoln, RI: QualityMetric, Inc.; 2000. <sup>2</sup>World Health Organization. Measuring health and disability: manual for WHO disability assessment schedule (WHODAS 2.0), World Health Organization, 2010, Geneva. <sup>3</sup>Cleeland C. The Brief Pain Inventory: User Guide. Houston, TX: MD Anderson Cancer Center; 2009. <sup>4</sup>Tait RC, et al. The Pain Disability Index: Psychometric properties. Pain. 1990;40(2):171-82.

**Pain Behaviors and Fear Avoidance:** <sup>5</sup>Revicki DA, et al. Development and psychometric analysis of the PROMIS pain behavior item bank. Pain. 2009;146(1-2):158-69. <sup>6</sup>Burwinkle, T., et al. (2005). Fear of movement: factor structure of the Tampa Scale of Kinesiophobia in patients with fibromyalgia syndrome. The Journal of Pain, 6(6), 384-391.

**Health Risk Behaviors:** <sup>7</sup>Heatherton TF, et al. The Fagerstrom Test for Nicotine Dependence: A revision of the Fagerstrom Tolerance Questionnaire. British Journal of Addiction. 1991;86(9):1119-27. <sup>8</sup>Ewing JA. Detecting alcoholism. The CAGE questionnaire. JAMA, 1984;252(14):1905-7. <sup>9</sup>Brown, R.L., and Rounds, L.A. Conjoint screening questionnaires for alcohol and drug abuse. Wisconsin Medical Journal 94:135-140, 1995.

# Domains of Pain Assessment



## Social

- Multicomponent Social Functioning
  - WHYMPI<sup>1</sup>
- Social Enfranchisement
  - PE<sup>2</sup>

## Family

- Dyadic Adjustment
  - DAS<sup>3</sup>

## Work

- Work Productivity/Impairment
  - WPAI<sup>4</sup>

**Social:** <sup>1</sup>Kerns RD, Turk DC, Rudy TE. The West Haven-Yale Multidimensional Pain Inventory (WHYMPI). Pain 1985;23:345-56. <sup>2</sup>Heinemann AW, Lai JS, et al. Measuring participation enfranchisement. Arch Phys Med Rehabil. 2011 Apr;92(4):564:71.

**Family:** <sup>3</sup>Spanier GB. The measurement of marital quality. J Sex Marital Ther

**Work:** <sup>4</sup>Reilly MC, Zbrozek AS, Dukes EM. The validity and reproducibility of a work productivity and activity impairment instrument. Pharmacoeconomics 1993; 4(5):353-65.

# Do we need to assess everything?

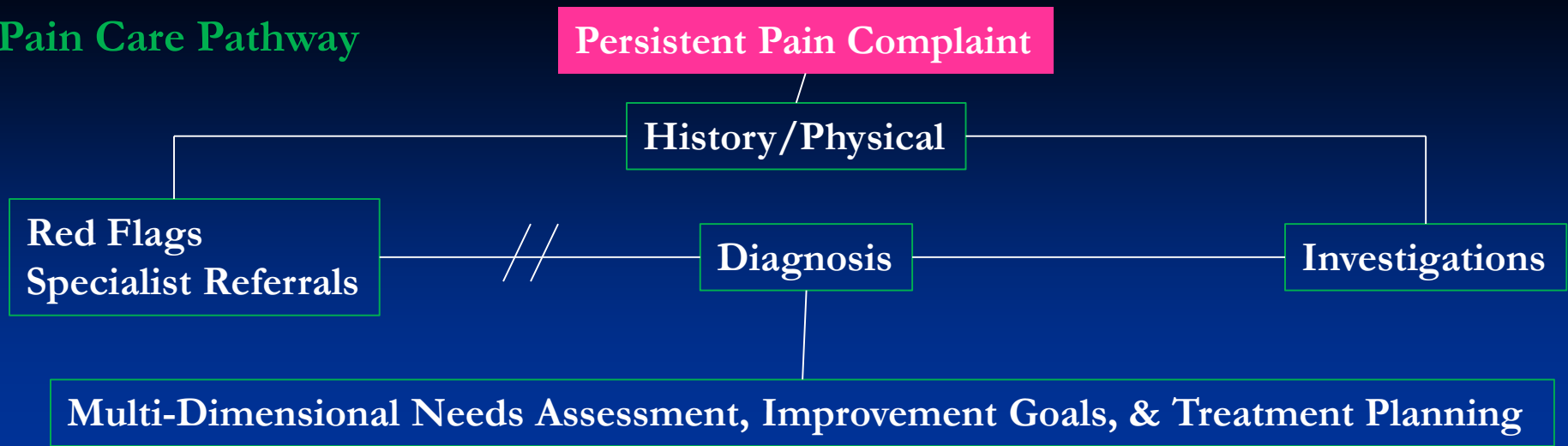


# Do we need to assess everything?

**Not necessarily all at once**  
**Assessment can be iterative over time**



## Pain Care Pathway



- 65 y/o Female
- Retired
- R-KOA
- Possible FM

**Pain: Local OA**

**Pain: Widespread – HA, pelvic**

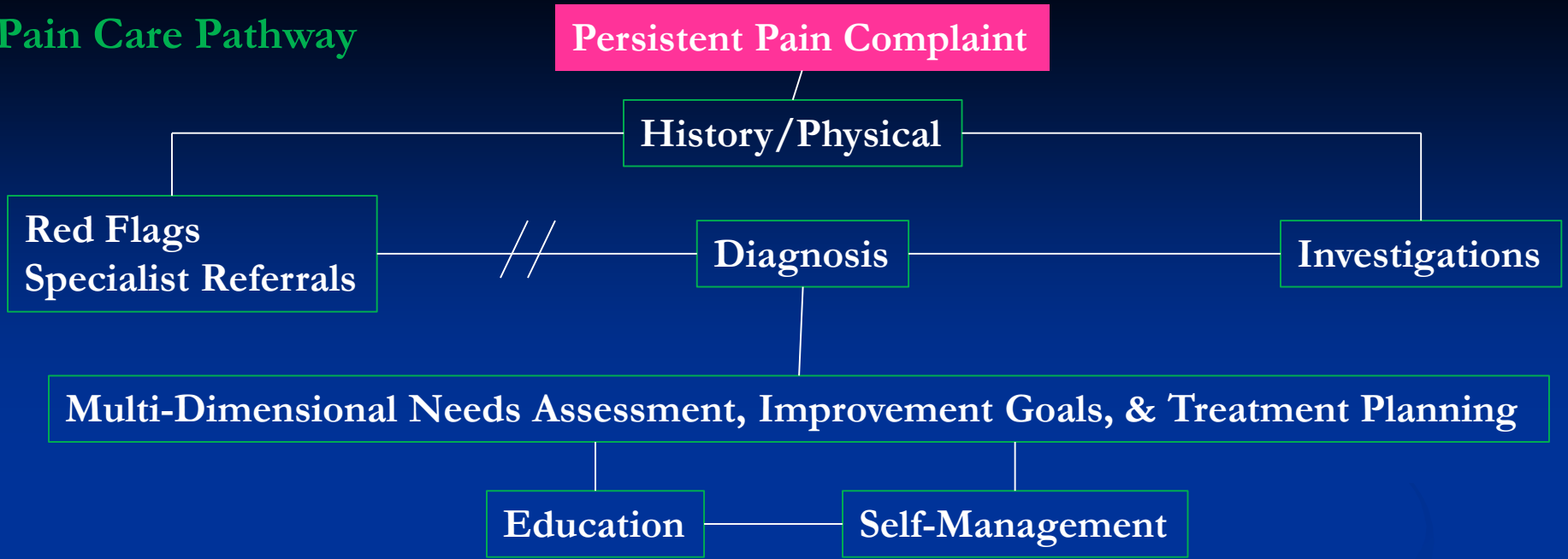
**Sleep is poor**

**Being retired makes her worried and anxious**

**Expectations: just a few opioids are ok, no counseling**

**7 years older husband is the primary social support**

# Pain Care Pathway





# Self-Management is Supported by CBT, Fitness, and Education



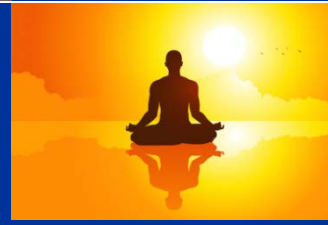
# Topics in Psychosocial Pain Interventions

Exercise/Energy, Reframing/Relaxation, Affect/Action, Sleep/Social, Education (ERASE)

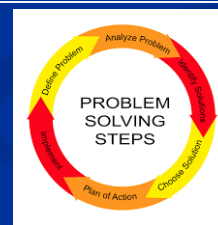
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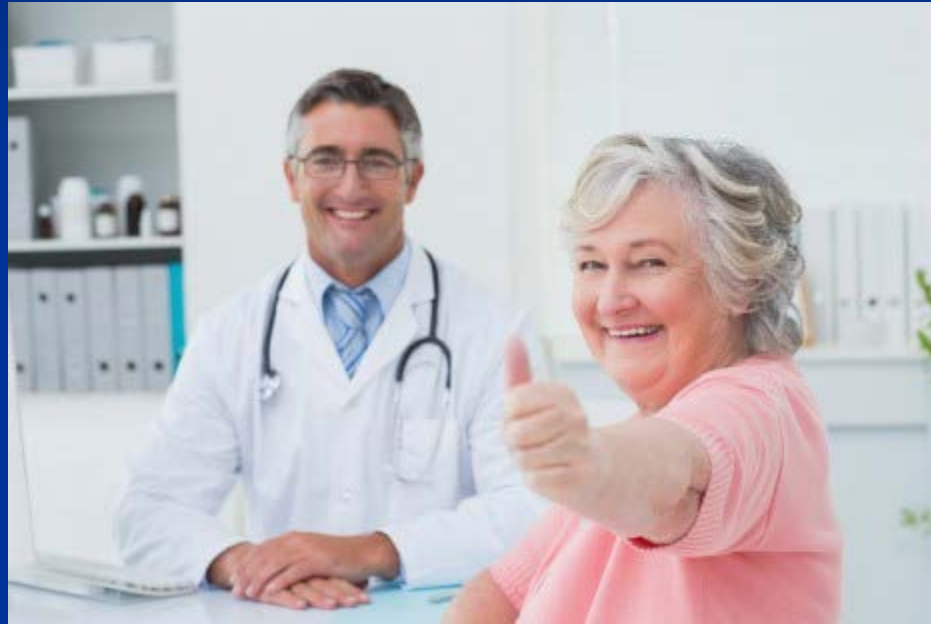
## Exercise and Energy

- Multiple reviews and meta-analyses, and professional society guidelines recommend exercise and physical activity for the treatment of chronic pain and fatigue





**“Many studies show that exercise will help your pain and fatigue.  
I want you to start exercising.”**



**OK!!**

# More common responses



Silence



The are “you insane” stare



Resistance

# Exercise needs to start with a patient-centric conversation

- Merits
- Barriers
- Motivation
- Rewards
- How to get started

# Merits

## 20 Exercise Benefits

1. Reduces body fat
2. Increases lifespan
3. Oxygenates body
4. Strengthens muscles
5. Manages chronic pain
6. Wards off viruses
7. Reduces diabetes risk
8. Strengthens heart
9. Clears arteries
10. Boosts mood
11. Maintains mobility
12. Improves memory
13. Improves coordination
14. Strengthens bones
15. Improves complexion
16. Detoxifies body
17. Decreases stress
18. Boosts immune system
19. Lowers blood pressure
20. Reduces cancer risk

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### THE BRAIN BENEFITS OF EXERCISE



INCREASES PRODUCTION OF NEUROCHEMICALS THAT PROMOTE BRAIN CELL REPAIR



IMPROVES MEMORY



LENGTHENS ATTENTION SPAN



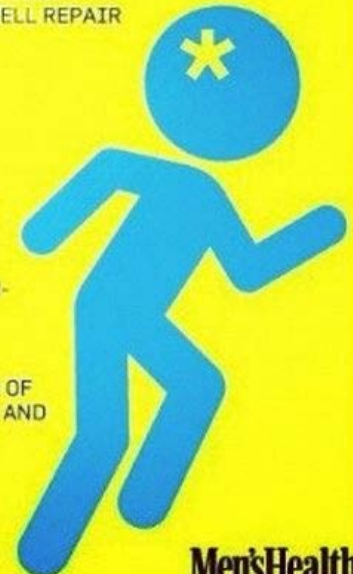
BOOSTS DECISION-MAKING SKILLS



PROMPTS GROWTH OF NEW NERVE CELLS AND BLOOD VESSELS



IMPROVES MULTI-TASKING AND PLANNING



Men'sHealth



# Barriers



I'm in too much pain to exercise



I'm too fatigued to exercise

Skinny people will laugh at me.

I'm too busy to exercise

I can't afford a gym membership

It's not fun

I hate sweat.

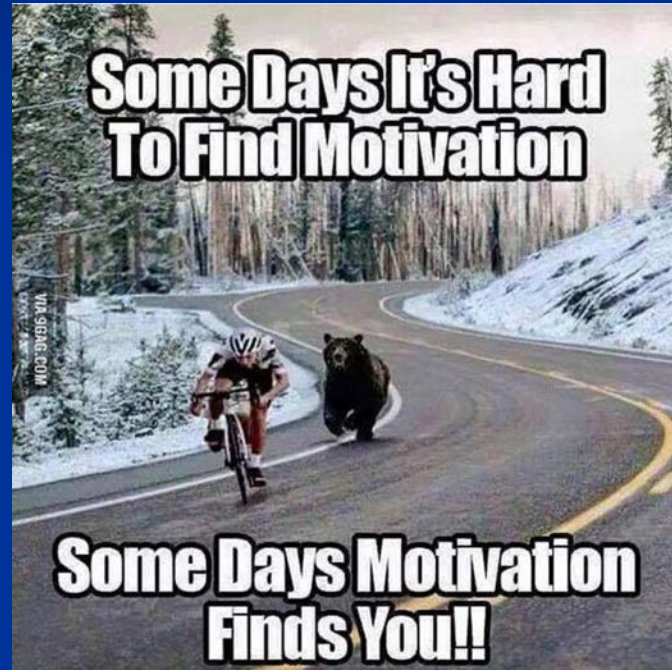
I don't live where I can exercise

I don't have any workout clothes

I have kids to drive around

No one will exercise with me.

# Problem Solving, Motivation, and Rewards



**EXERCISE IN  
THE MORNING**  
BEFORE YOUR BRAIN FIGURES  
OUT WHAT YOU'RE DOING

**EXERCISING WOULD  
BE SO MUCH MORE  
REWARDING IF  
CALORIES  
SCREAMED WHILE  
YOU BURNED THEM**

# Types of Physical Activity

## ■ Aerobic training

- at moderate intensity can improve pain, fatigue, depressed mood and physical limitations

## ■ Strength training

- may decrease pain, and depression, and improve overall well-being

## ■ Movement therapies

- Tai Chi – improves balance, well-being, fitness and pain
- Yoga – improves pain functioning, HRQOL

# Step Counts

- Activity trackers – Fitbit (\$100) and pedometers can be found for as little as \$10.
- Every day beat the day before by 50 steps.
- Healthy: 10,000 steps a day
  - (18 – 1,900 steps in a mile)



# Lifestyle Physical Activity

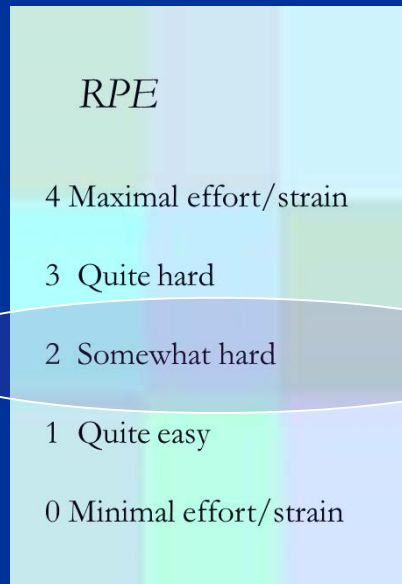


# Aerobic Lifestyle Fitness



# How should I do it?

- Follow the F.I.T.T. principle:
  - *Frequency* – Number of days per week. (e.g., 3x per wk)
  - *Intensity* – How hard the activity feels to you.



<i>RPE</i>	
4	Maximal effort/strain
3	Quite hard
2	Somewhat hard
1	Quite easy
0	Minimal effort/strain

- *Time* – The total time you do physical activity. (e.g. 30min)
- *Type* – The kind of physical activity you do.

# Energy Efficiency



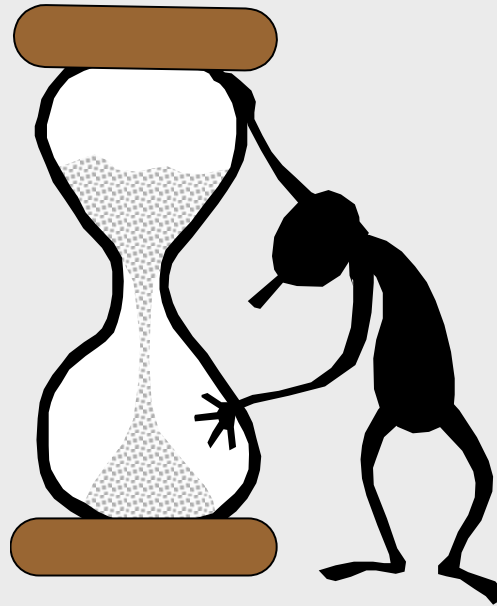




# Behavioral Activation Skills

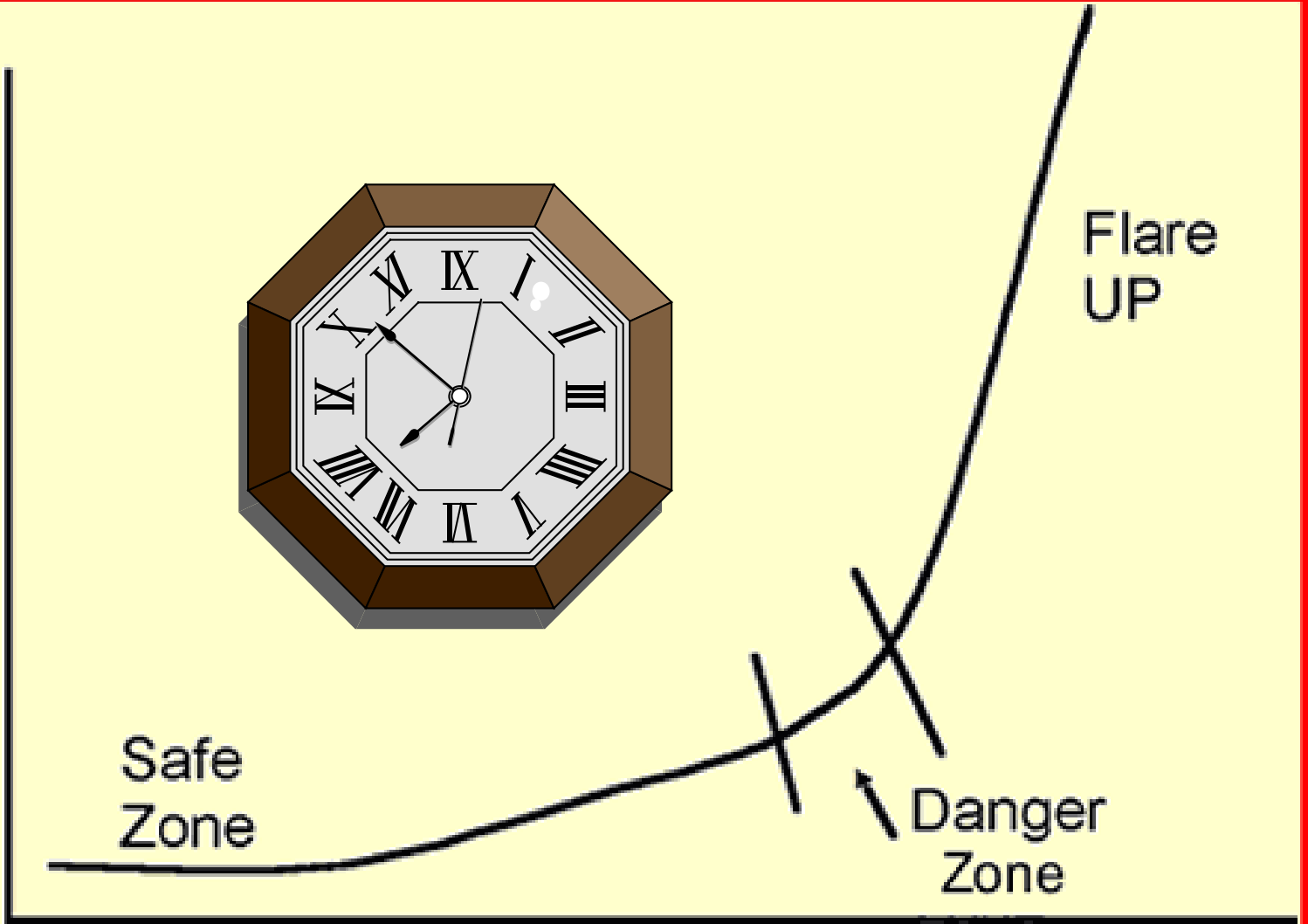
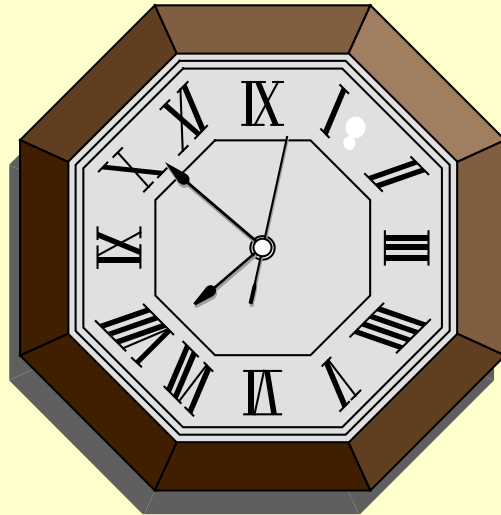
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## Time-Based Pacing



**Activity-Rest-Activity-Rest**

S  
Y  
M  
P  
T  
O  
M  
  
L  
E  
V  
E  
L



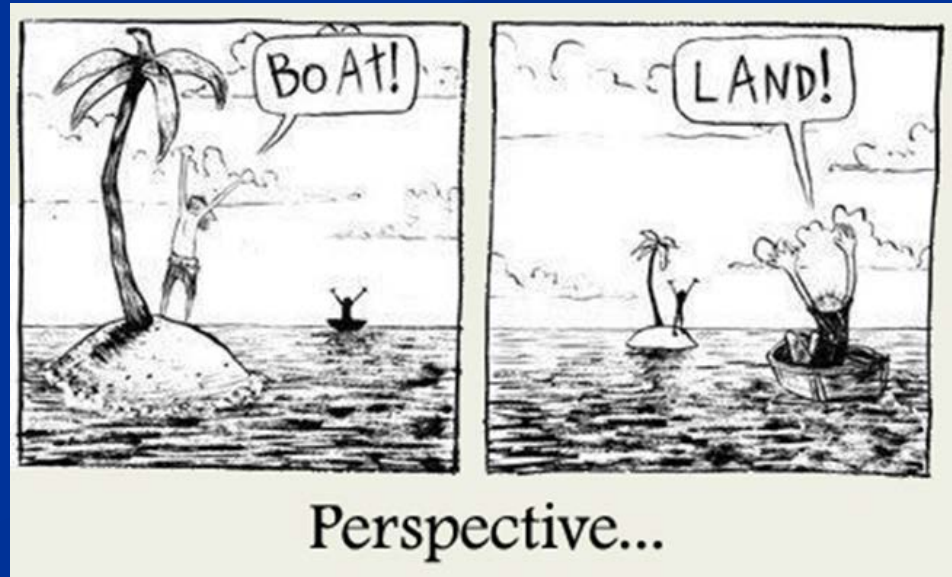
Safe  
Zone

Danger  
Zone

Flare  
UP

Time

## Reframing



# Novel learning



Novel skills



Novel acquaintances

## New activities

- Time to figure out each step
- Unknown outcomes
- Fatiguing
- Awkward
- No easy flow

# Automatic Thinking



## Familiar Activity

- Flows easily
- Mindless
- Efficient
- Multi-task
- Lower stress



But...Can close off need  
for novelty, and creativity

- Closed minded

# If Novel Learning is Negative, Automatic Thinking becomes Negative

## Acute pain is awful

- Feels better with rest, avoiding tasks, withdraw socially
- Prepares self for the worst
- Catastrophizing – produces negative emotions



## When pain becomes chronic

- Tendency to retain acute pain thinking
- Don't revisit assumptions about pain
- Physiological toll - deconditioning
- Need to focus on challenging old assumptions



STEP 1	STEP 2	STEP 3	STEP 4
Identify the situation that causes negative thoughts	Describe your negative thoughts	Describe your emotions	Reframe your thoughts
<p>I haven't done the laundry in weeks. It just hurts too much.</p>	<ul style="list-style-type: none"> <li>• I'm a terrible wife</li> <li>• I can't do anything anymore</li> <li>• My husband will be angry with me</li> </ul>	<ul style="list-style-type: none"> <li>• Guilt</li> <li>• Worthlessness</li> <li>• Anxiety</li> </ul>	<ul style="list-style-type: none"> <li>• Having fibromyalgia is not my fault, and it does not mean I am a bad wife</li> <li>• There are many things I can do without help, but laundry is not one of them</li> <li>• If I explain to my husband about my pain and ask for his help, he'll understand</li> </ul>

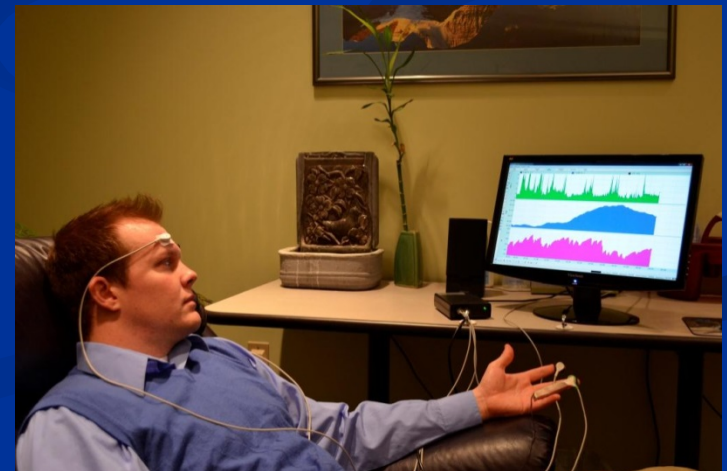


## Mindfulness Meditation

- State of consciousness where the focus is on attention, awareness and moment-by-moment experience
- Attitude of curiosity, openness, and acceptance
- Decreased automatic thinking, and analytical self-referential rumination

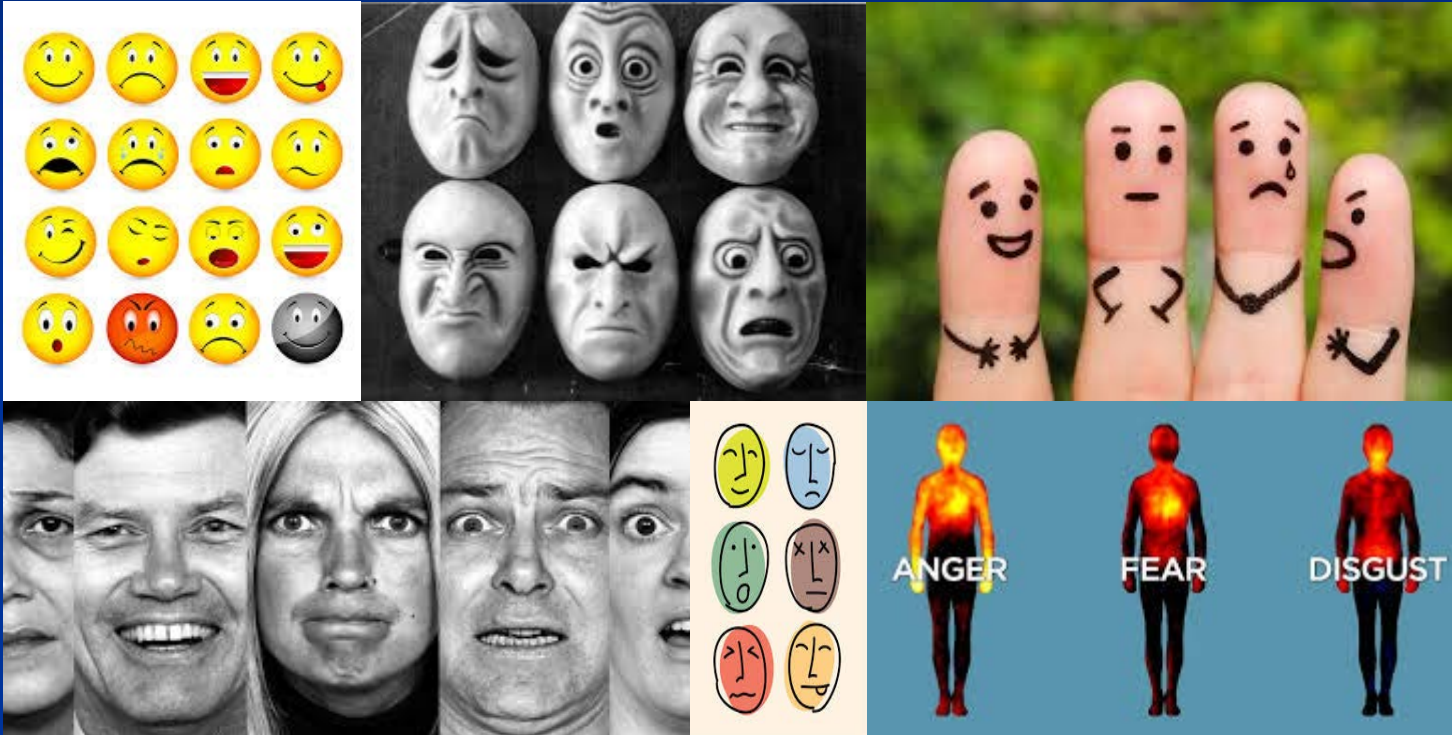


# Methods of Achieving the Relaxation Response



ERASE

# AFFECT



# Emotional Awareness and Expression Therapy (EAET)

- Based on assumption that pain is influenced by unresolved emotional conflict/trauma
- Therapy seeks to resolve affective perturbation
- Effects similar to CBT with some profound remissions of pain
- May be good fit for individuals with trauma history



# Pleasant Activity Scheduling



# Pleasant Activity Scheduling

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- Initiates movement through pleasant events
- Pleasant affect buffers pain
- Scheduling is better than random occurrences
  - More likely to happen
  - More predictable, less flare-ups



ERASE

# ACTION



**Step 1**  
**Identify the Problem**

**Step 2**  
**Collect Information**  
What do I know about this problem?  
Where can I get more information?

**Step 3**  
**Brainstorm Solutions**

**Step 6**  
**Review and Evaluate**  
What happened?

**Step 5**  
**Develop Workable Plan**

Plan:

Barriers:

Choices:

- Put your plan into action
- Barriers too great (go back to Step 3)
- Multiple problems (go back to Step 1)

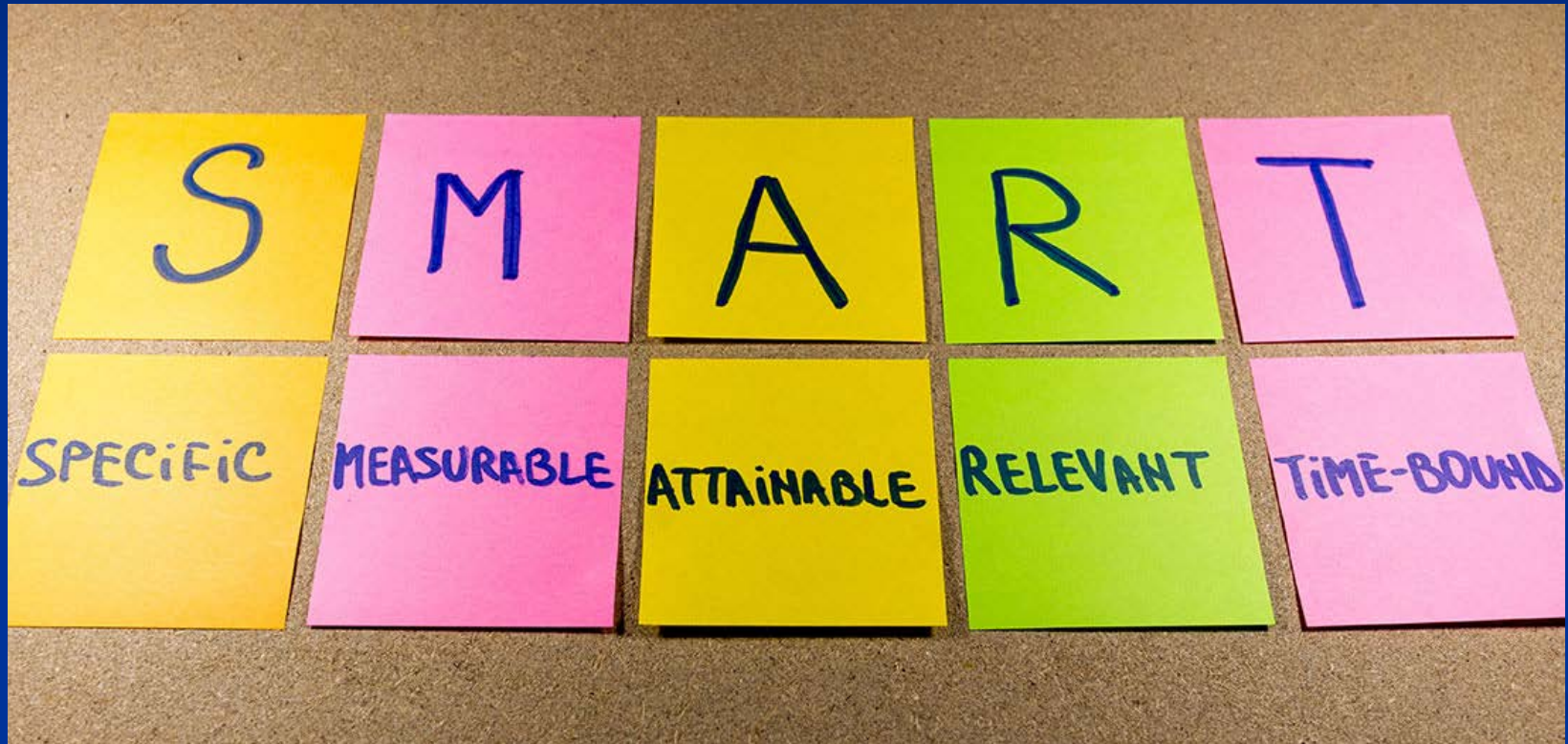
**Step 4**  
**Evaluate Brainstorming Ideas**  
Consider each idea from Step 3 in terms of  
its being realistic and favorable

Choose one solution to try:

**The Problem Solving Cycle Worksheet**



# Goal Setting



Poor Goal: Make a bunch of money

Strategic Goal: Make \$50 this week

Tactical Goal: Sell my old suits to consignment store on Thursday

# Sleep



# One night's loss of sleep...

- Impacts the next 2 days
  - Physical ability
    - Coordination
    - Dexterity
    - Energy
  - Mental ability
    - Emotional stability
    - Memory
    - Concentration



# Sleep Hygiene Skills

## Timing

Regular bed time/wake time

## Sleep Behavior

Get in bed only when sleepy

Use bed for sleep

Get up after 15' if no sleep

## Thermal Tips

Decline in core temp signals sleep

Exercise, warm bath before bed

## Environment

Steady room temperature

Keep room dark

## Ingestion

Decrease nicotine

Decrease Caffeine

Alcohol interferes with sleep

Light snack is recommended

## Mental Control

Effort will not produce sleep

Avoid mental stimulation

Seek mental quiescence

# Social



# Social Challenges



Awkward  
Tense  
Confrontational

Dr. -Patient



Caring at first  
Withdrawal  
Dependent  
Loss

Friends



Withdrawal  
Impatience  
Shifting roles  
Dependence  
Loss  
Loss of Self-esteem

Family



Others cover  
Competence?  
Accommodate?  
Loss of role  
Lost Self-esteem  
Lost Motivation  
Lost social position

Employer and co-workers

ERASE

# Education



# Educational Resources



- Self-help books on Chronic Pain

-Amazon lists 100 (1/2018)

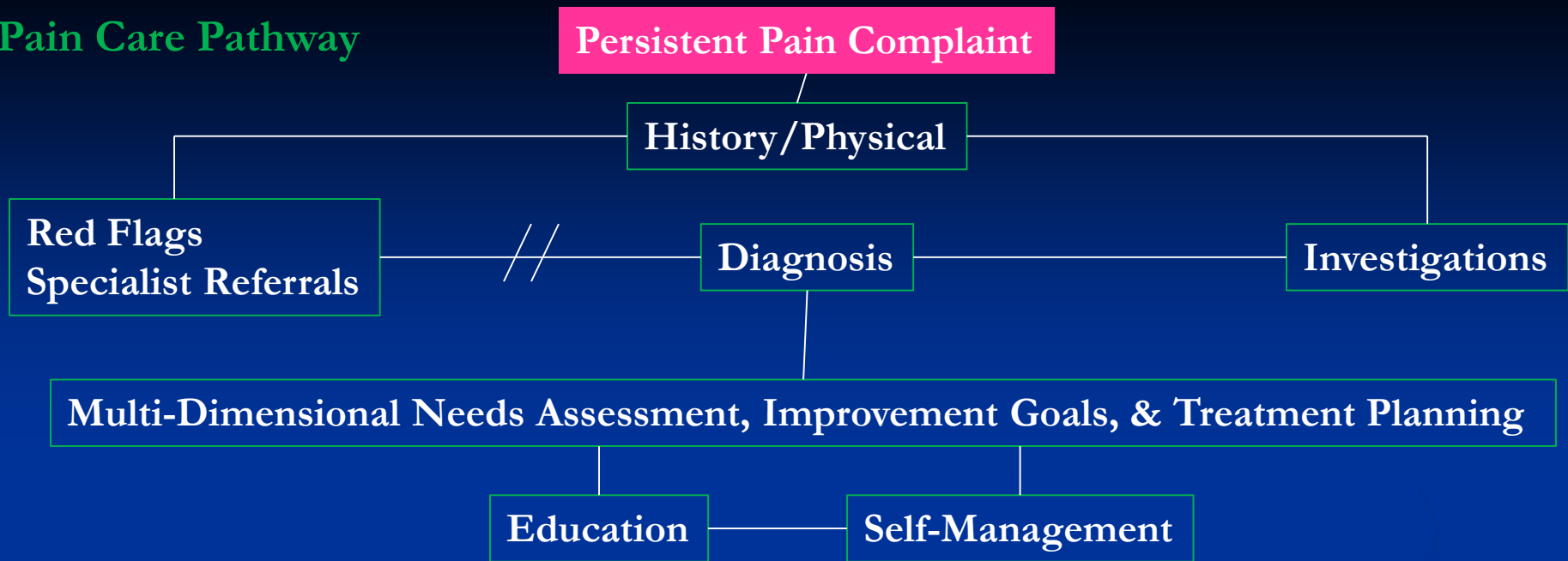


- Subscription magazines
- Patient organizations





## Pain Care Pathway



### Self-management helped:

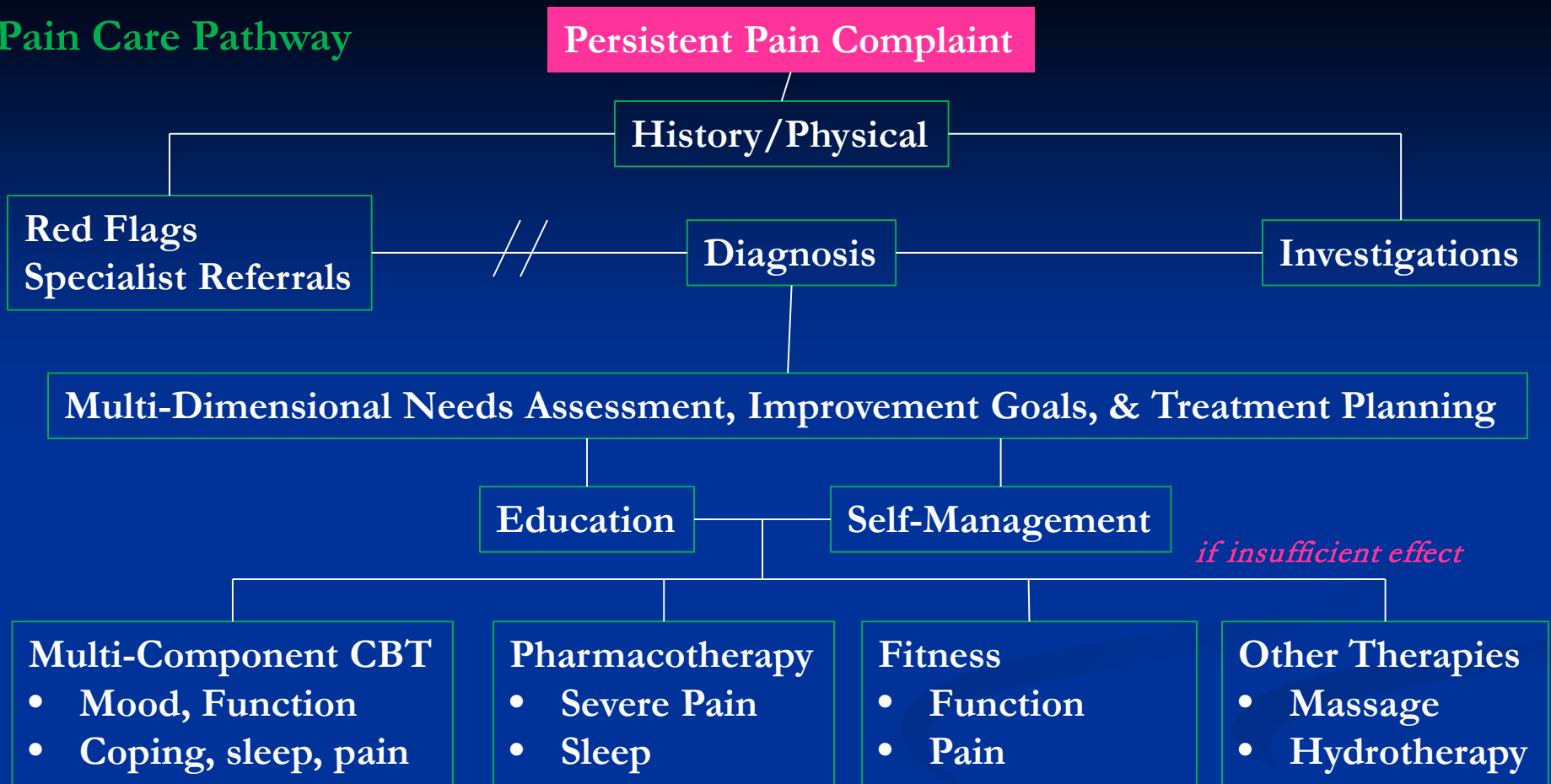
Increase functioning with pacing but pain remained  
Doing some pleasant activities  
Sleeping a little better

Still worried and anxious about retirement

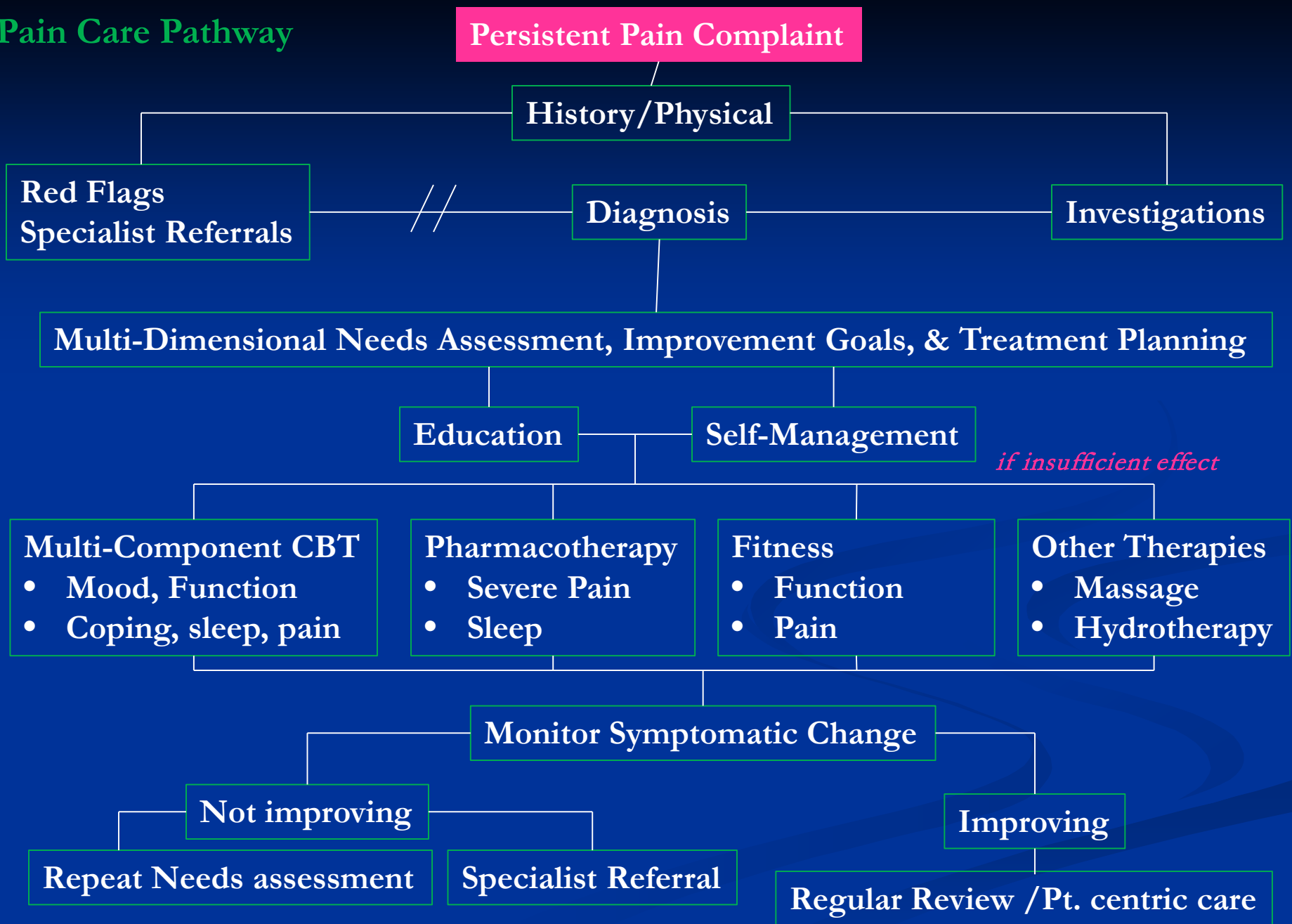
Not able to exercise

Can't get husband to engage in activities with her

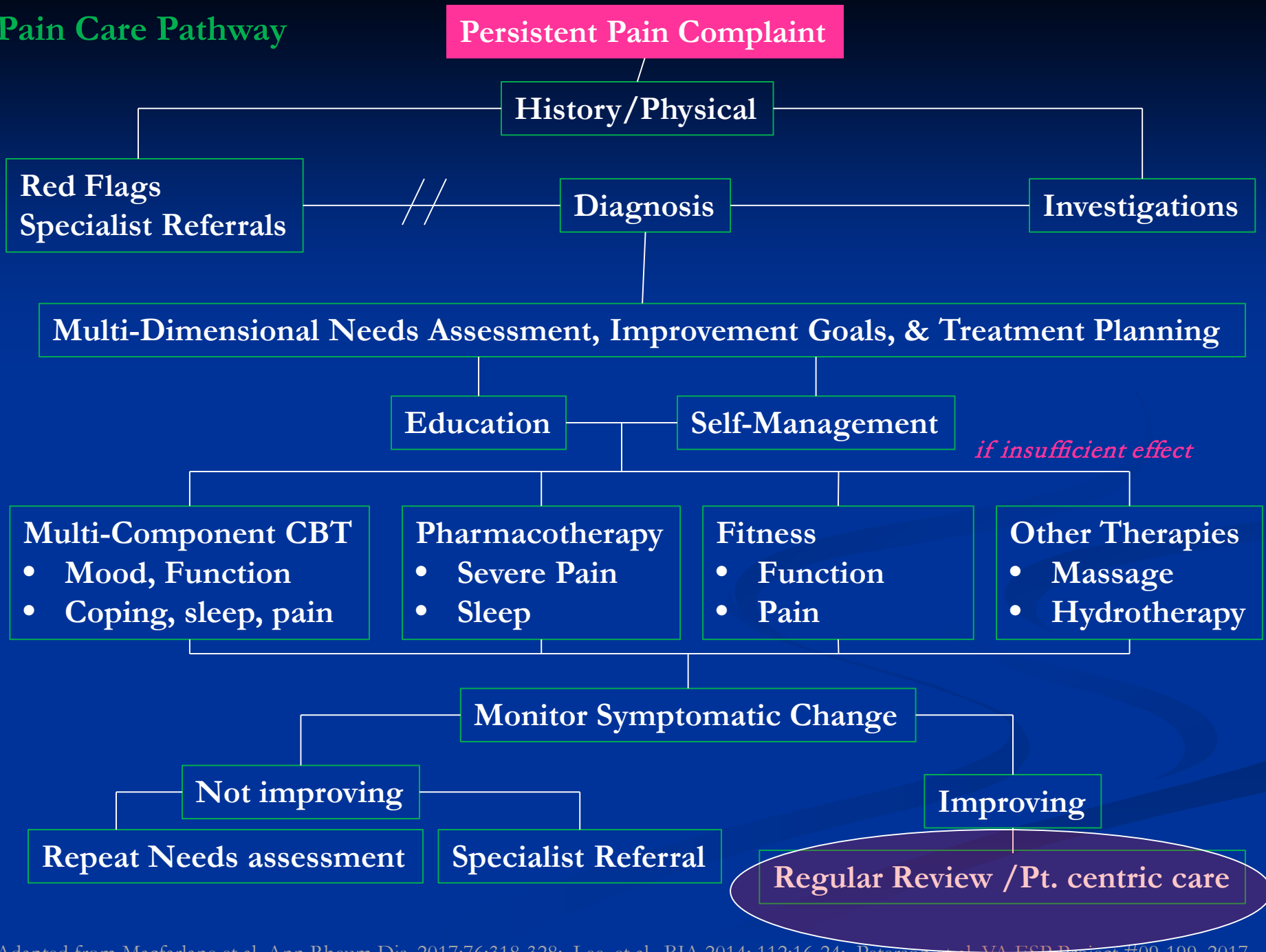
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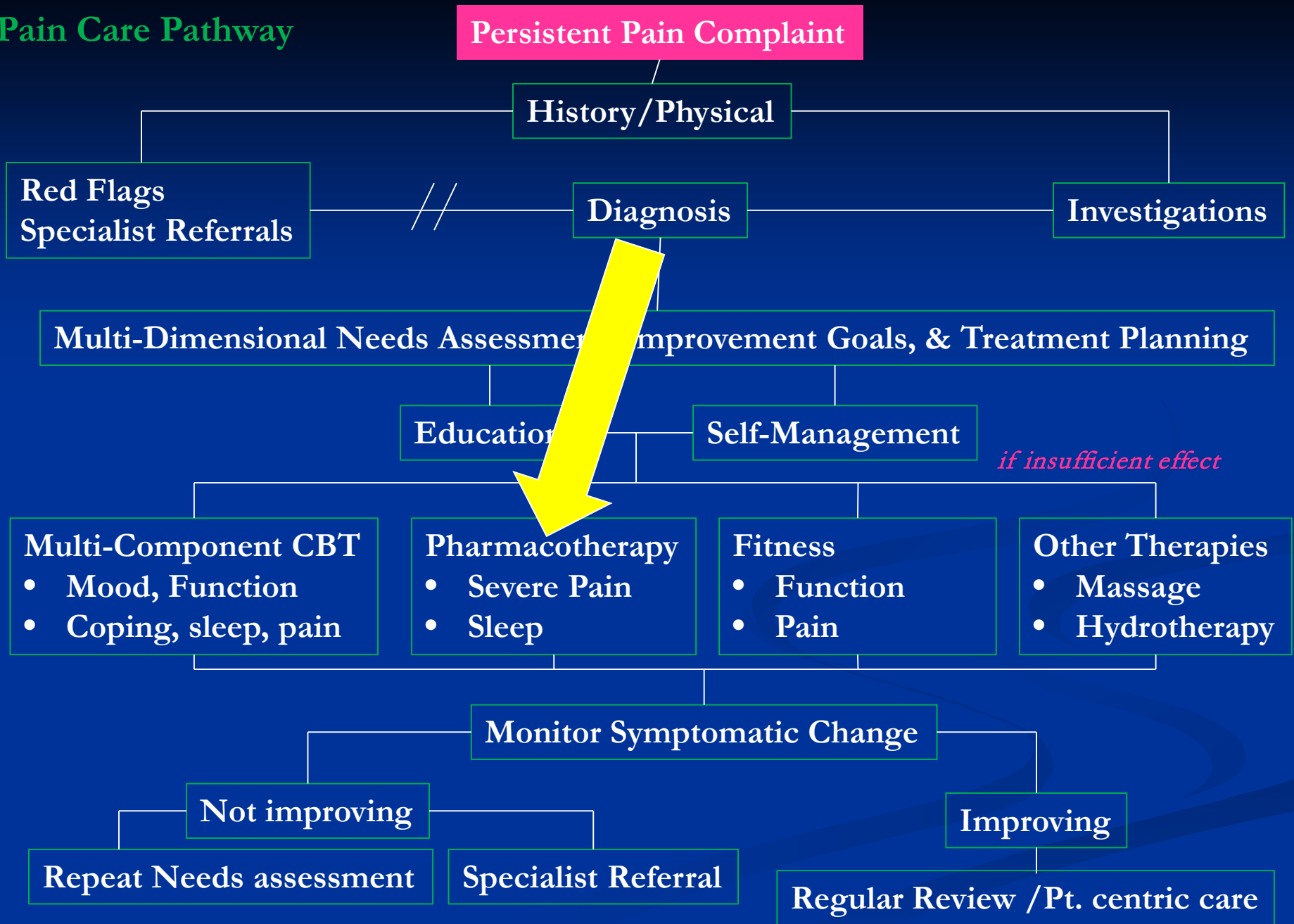
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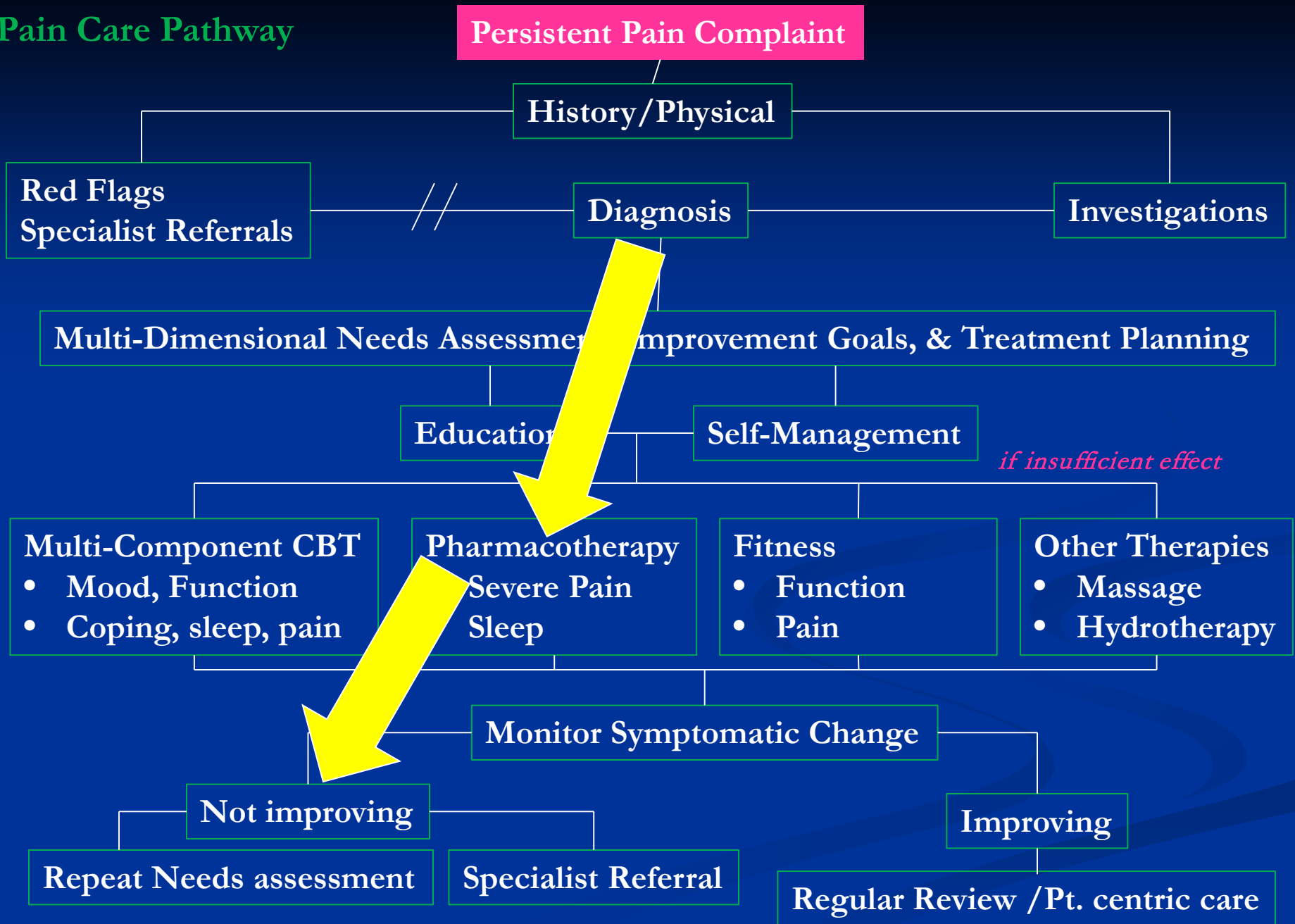
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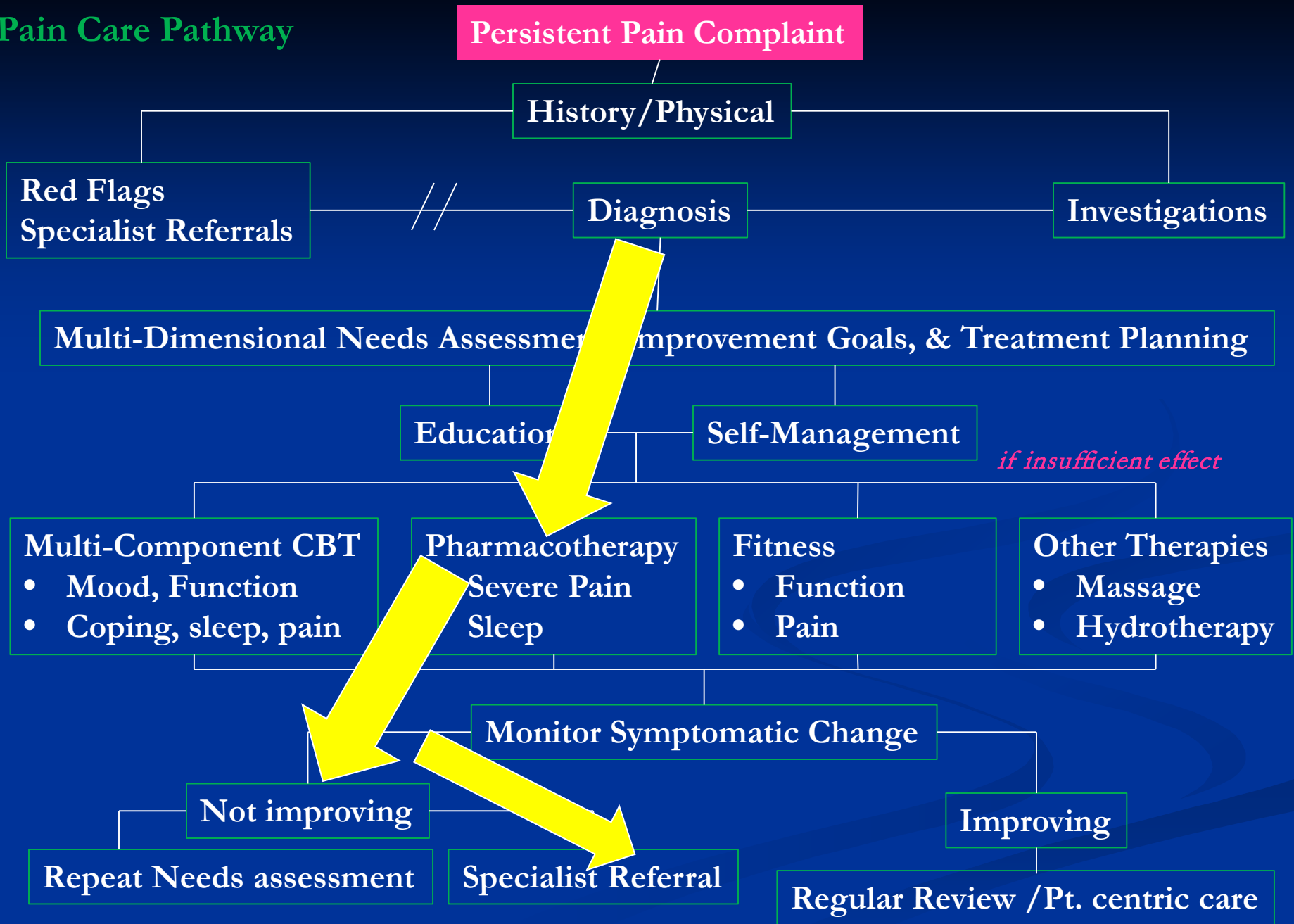
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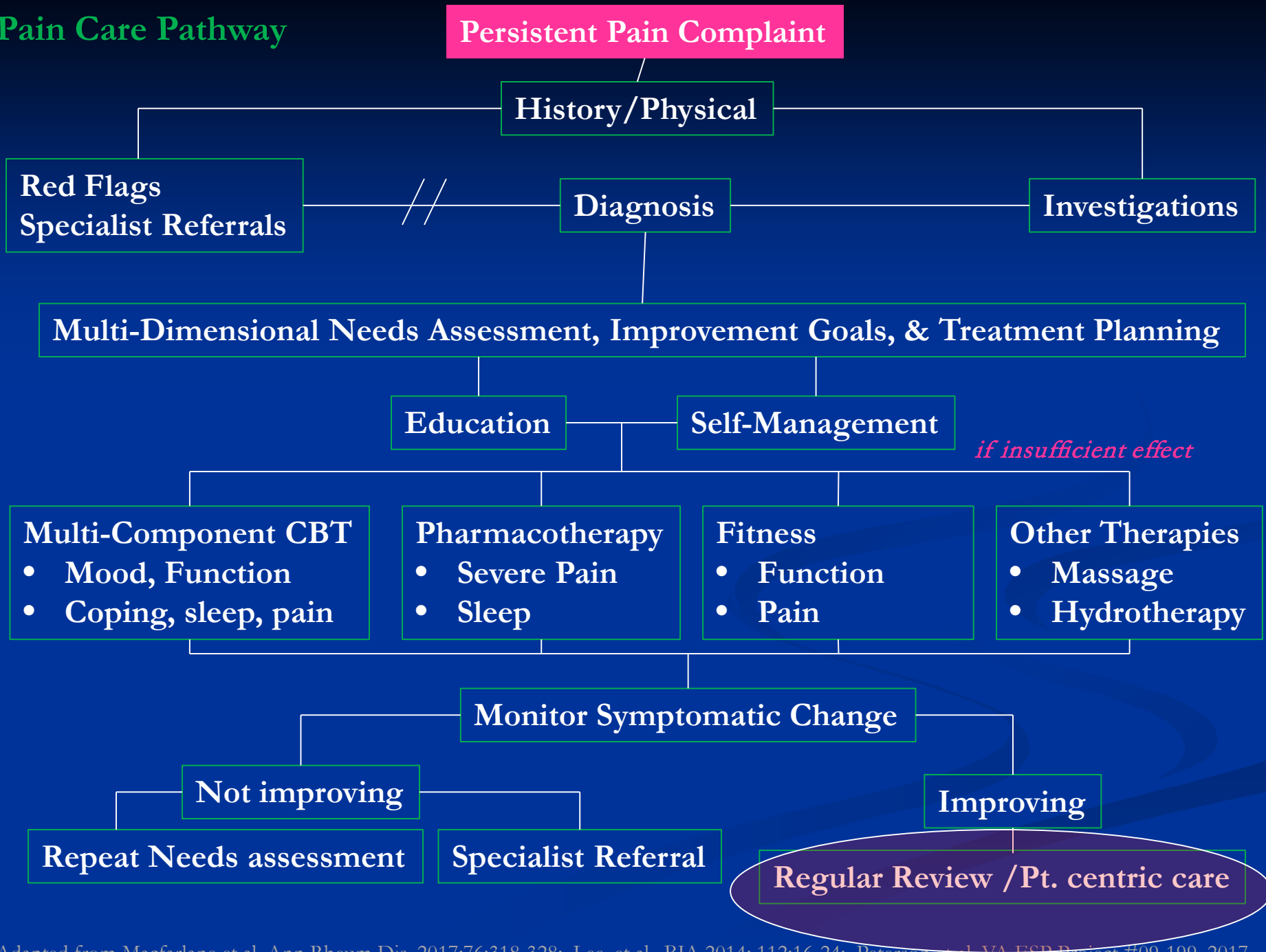
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