

Multi-dimensional Pain Assessment and Psychosocial Interventions

MiCCSI

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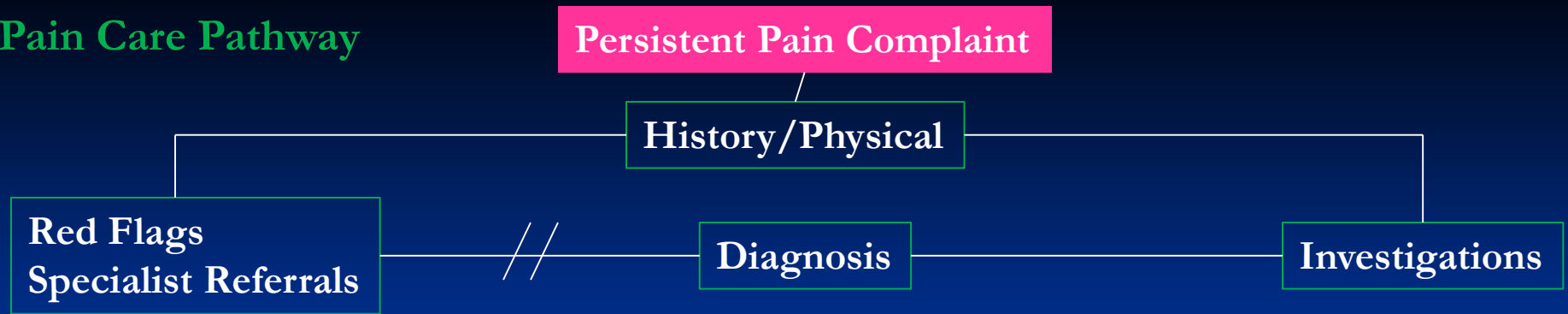
Ann Arbor, Michigan

Disclosures

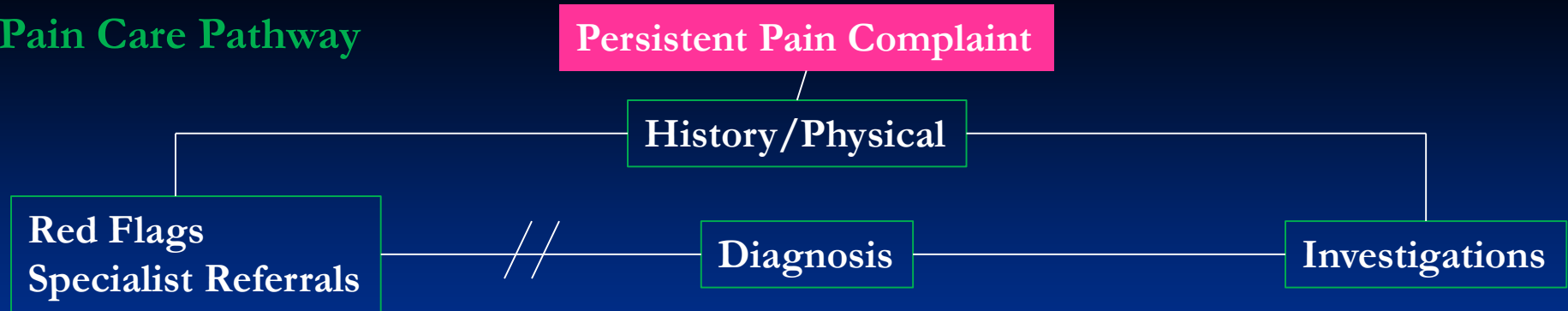
- Consultant to Community Health Focus Inc.
- President of the American Pain Society
- Chair of Steering Committee reviewing grants for APS sponsored by Pfizer
- Funded for research by NIH

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

Pain Care Pathway

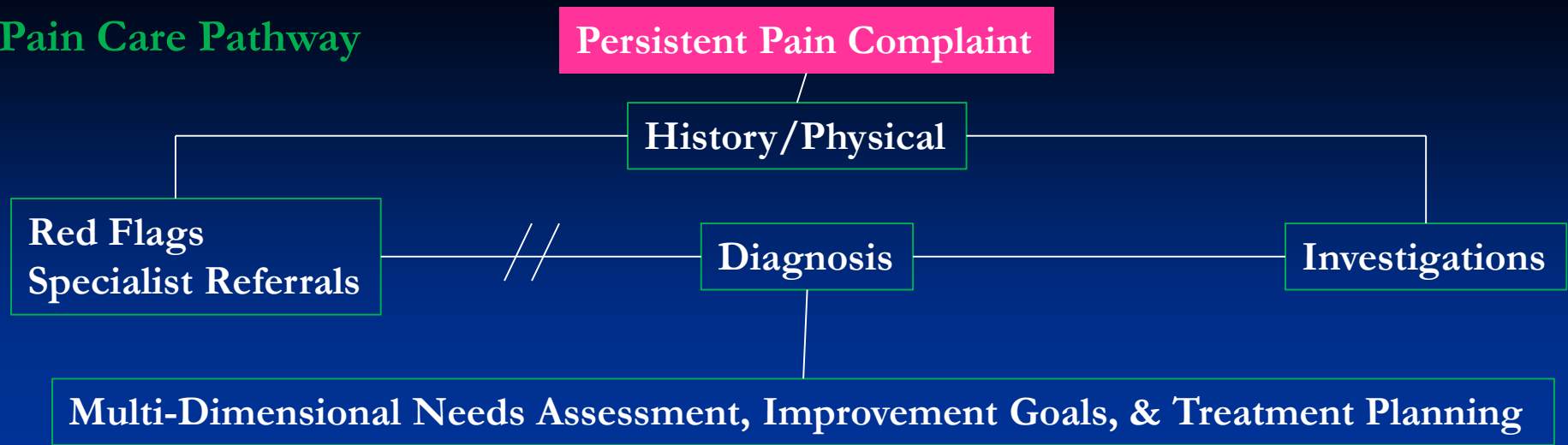


Pain Care Pathway

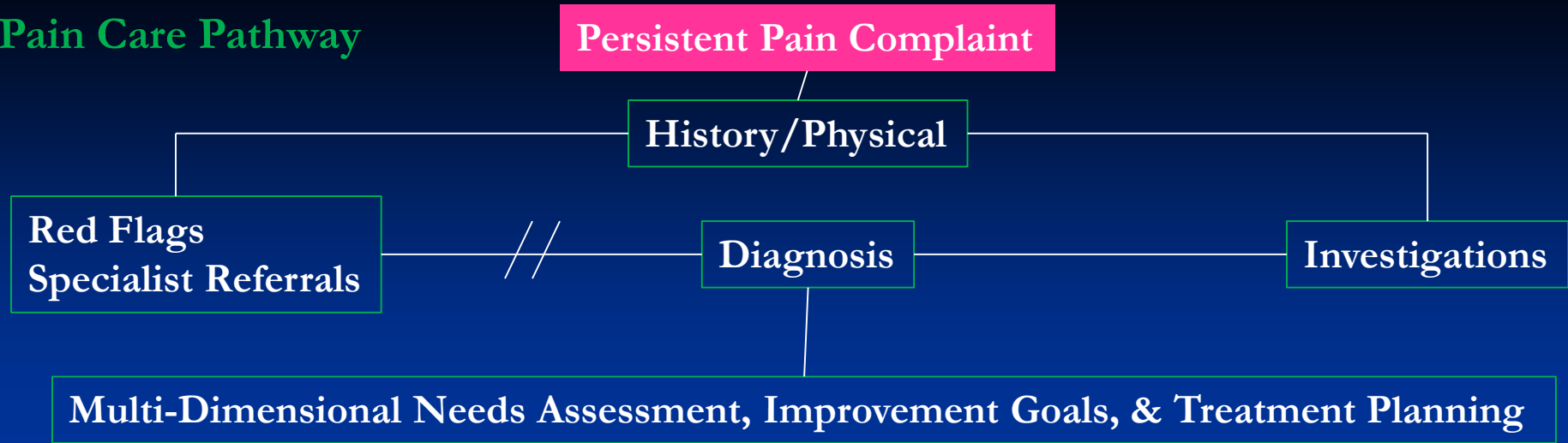


- 65 y/o Female
- Retired
- R-KOA
- Possible FM

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



Intensity

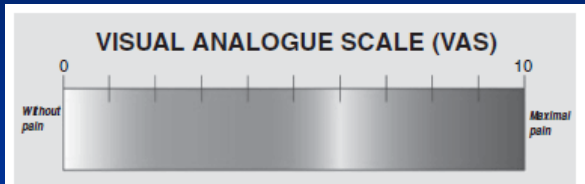
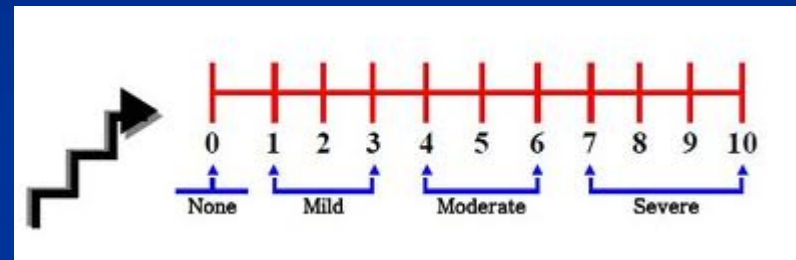
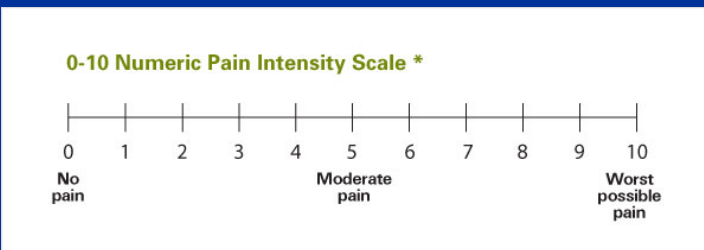


Figure 1. Visual Analogue Scale used to measure Pain.

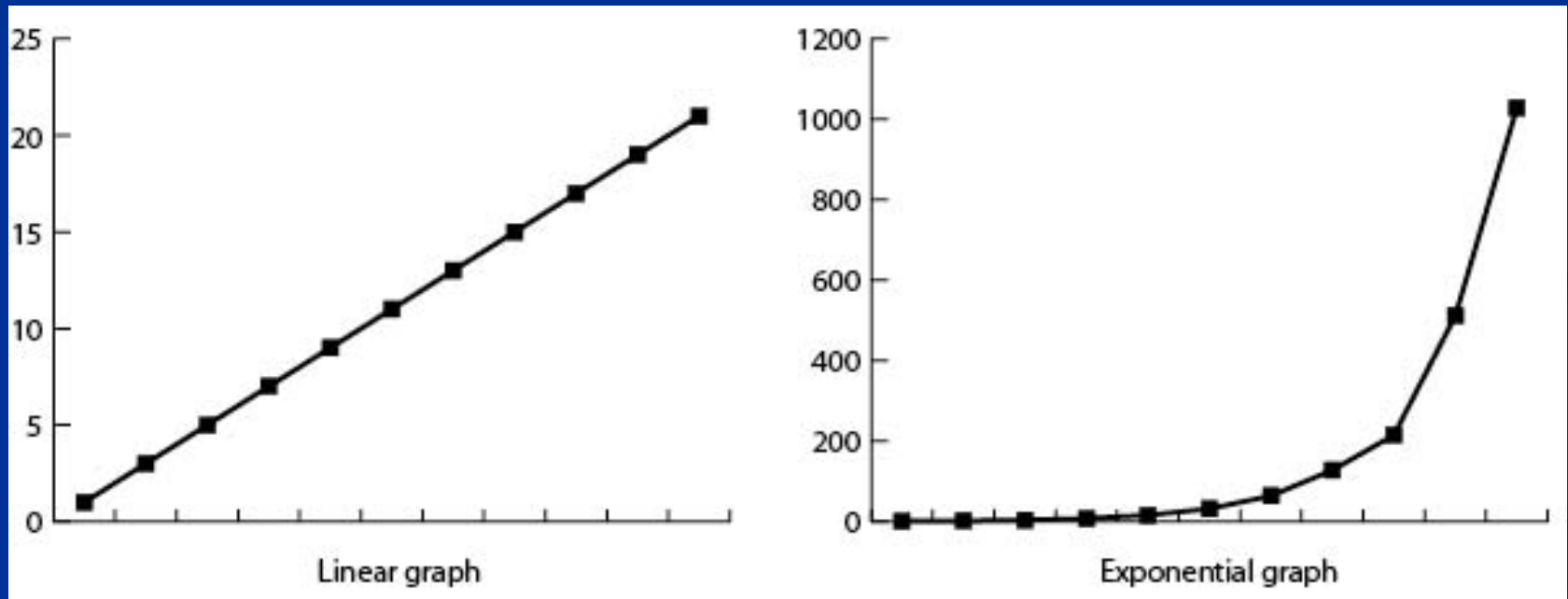


Verbal Rating Scale: Discomfort Rating

- 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



Right Left

Back



Left Right

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 your:

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 way your pain behaves:

	Persistent pain with slight fluctuations	☐
	Persistent pain with pain attacks	☐
	Pain attacks without pain between them	☐
	Pain attacks with pain between them	☐

Please mark your main area of pain

Right Left Left Right

Front Rear

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

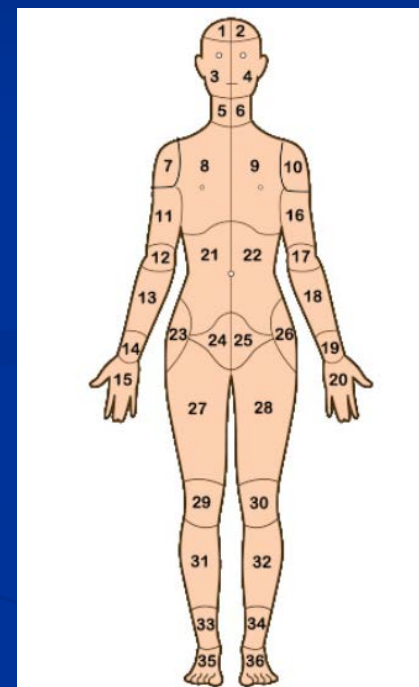
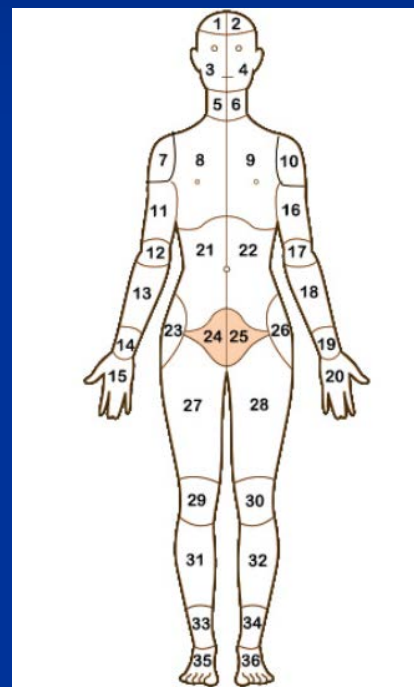
BACK

NEXT

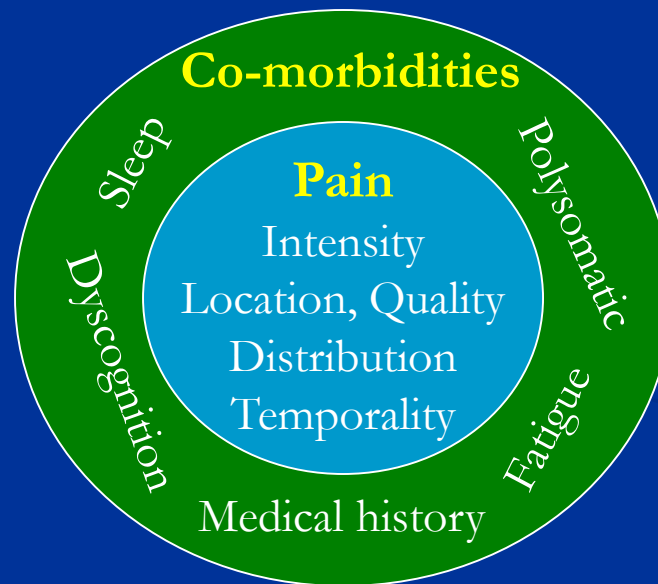


Focal vs Wide-Spread Pain

- 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

Sleep

- Sleep Disturbances
 - PROMIS¹
 - MOS²
 - PSQI³
- Sleep-related Impairment
 - PROMIS¹

Dyscognition

- Perceived Problems
 - MASQ⁴
 - MISCI⁵

Fatigue

- Multidimensional Fatigue
 - MFI⁶
 - PROMIS¹

Polysomatic Burden

- PILL⁷
- CMSI⁸
- FMness⁹
- CSI¹⁰

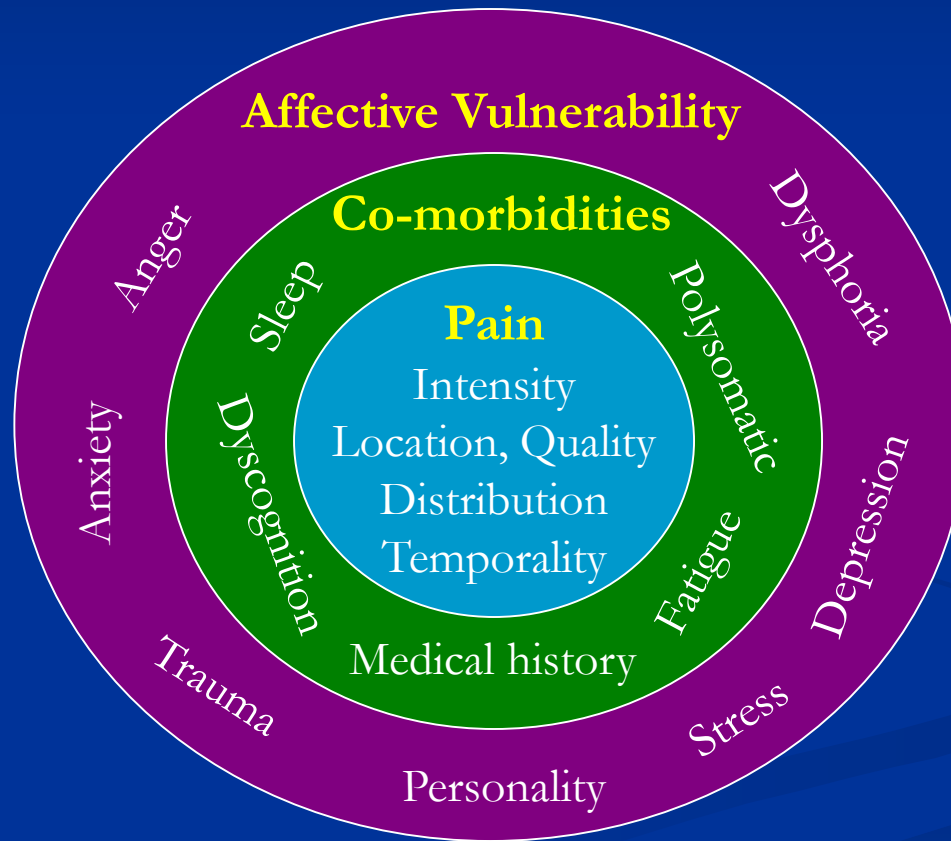
Sleep: ¹Cella D, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. J Clin Epidemiol. 2010;63(11):1179-94. ²Allen RP, et al. Psychometric evaluation and tests of validity of the Medical Outcomes Study 12-item Sleep Scale (MOS sleep). Sleep medicine. 2009;10(5):531-9. ³Buysse,DJ. 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: ⁴Seidenberg M. et al. Development and validation of a Multiple Ability Self-Report Questionnaire. Journal of Clinical & Experimental Neuropsychology. 1994;16(1):93-104.; ⁵Kratz AL, et al. Development and Initial Validation of a Brief Self-Report Measure of Cognitive Dysfunction in Fibromyalgia. The J Pain, 2015.

Fatigue: ⁶Smets 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: ⁷Pennebaker JW. The psychology of physical symptoms. New York, New York: Springer-Verlag; 1982.; ⁸Williams DA, et al. Advances in the assessment of fibromyalgia. Rheum Dis Clin North Am 2009;35:339-57.; ⁹Wolfe 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. ¹⁰Mayer 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 damage¹

Affective Vulnerability:

Highly predictive of first onset of chronic pain (e.g., TMD).²

Neuroimaging Findings:

Compared to acute pain, chronic pain appears more like an emotional event than a sensory event.^{3,4}

¹IASP 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. Updated 2007. Accessed January 6, 2011; ²Fillingim et al, Psychological factors associated with development of TMD: the OPPERA prospective cohort study. J Pain, 14(12 supp2), 2013:T75-T90; ³Hashmi 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; ⁴Denk F, McMahon SB, Tracey I. Pain vulnerability: a neurobiological perspective. Nature neuroscience. 2014;17(2):192-200.

Negative Affect

- Depression/Dysphoria
 - CES-D¹
 - PHQ-9²
 - PROMIS³
- Anxiety
 - STAI⁴
 - GAD-7⁵
 - PROMIS³
- Anger
 - STAXI⁶
 - PROMIS³

Trauma/Stress

- Trauma
 - CTES/RTES⁷
- Stress
 - PSS⁸

Personality

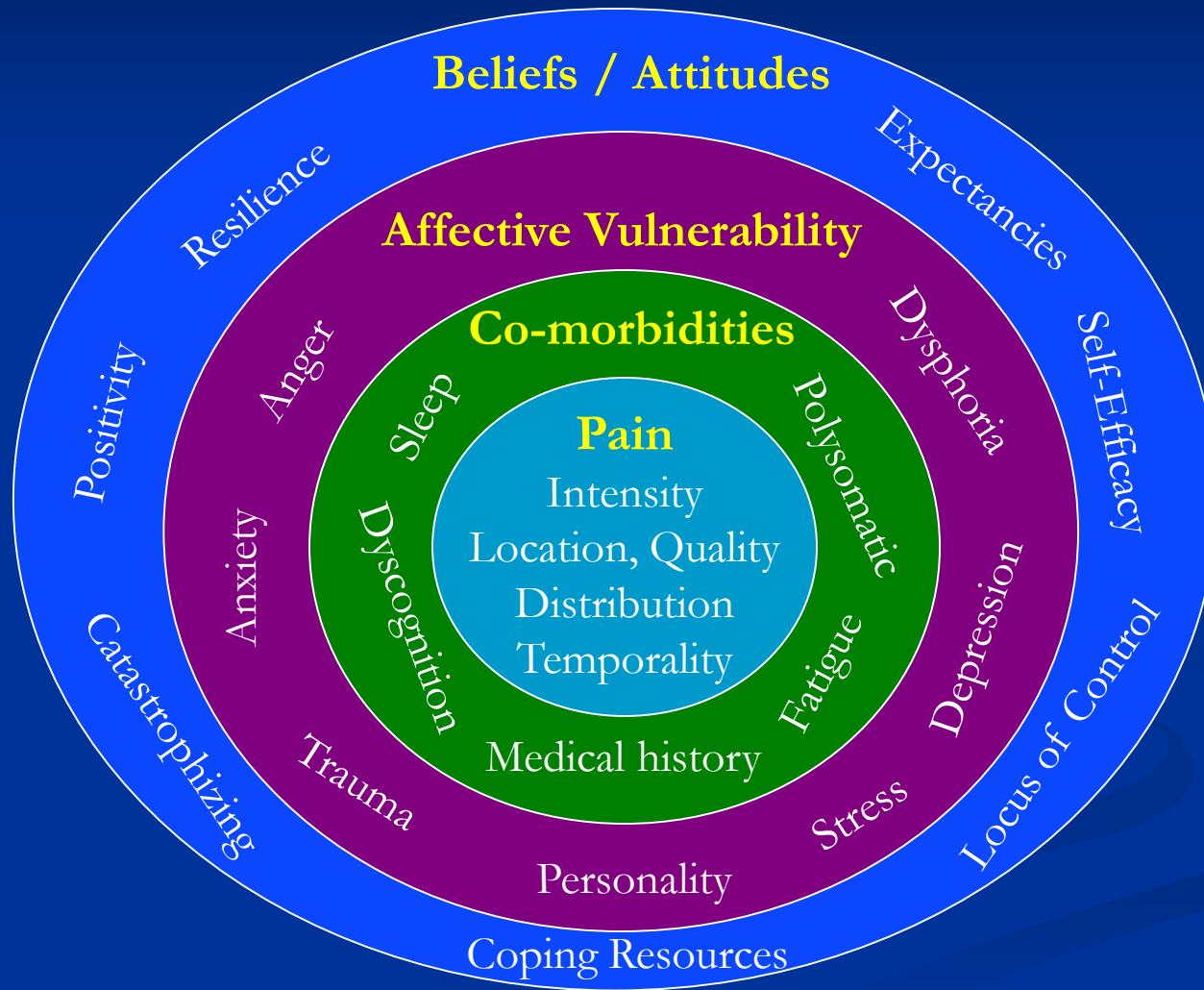
- 5 Factor Model
 - Neuroticism
 - Extroversion
 - Openness
 - Conscientiousness
 - Agreeableness
- IPIP⁹
- TIPI¹⁰

Negative Affect: ¹Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement* 1977;1:385-401. ²Kroenke K, et al. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med*. 2001;16(9):606-13. ³Cella 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. ⁴Spielberger CD, et al. Assessment of state and trait anxiety. *Anxiety: psychobiological and clinical perspectives*. Washington: Hemisphere/Taylor and Francis; 1991:69-83. ⁵Spitzer RL et al. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine*. 2006;166(10):1092-7. ⁶Spielberger CD. STAXI-2: State-Trait Anger Expression Inventory - 2. Professional Manual. Odessa, FL: Psychological Assessment Resources (PAR), Inc.; 1999.

Trauma: ⁷Pennebaker JW, et al. Disclosure of traumas and psychosomatic processes. *SocSciMed*. 1988;26(3):327-32.; ⁸Cohen S, et al. A global measure of perceived stress. *J Health Soc Behav*. 1983;24(4):385-96.

Personality: ⁹Goldberg, 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.; ¹⁰Gosling, 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
 - SOPA¹
 - PBPI²
 - BBCA³
- Locus of Control
 - BPCQ⁴

Coping Resources

- Coping Strategies
 - CSQ⁵
 - CPCI⁶
- Catastrophizing
 - PCS⁷
- Self-Efficacy
 - PSE⁸

Expectancies

- Treatment Expectancy and credibility
 - TEC⁹

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

Coping: ⁵Rosenstiel 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; ⁶Jensen MP, et al. The Chronic Pain Coping Inventory: development and preliminary validation. Pain. 1995;60(2):203-16. ⁷Sullivan M, et al.. The Pain Catastrophizing Scale: Development and validation. Psychological Assessments 1995;7:524-32. ⁸Lorig 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: ⁹Smeets 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
 - PANAS¹
- Affect Balance²
- Hardiness
- Grit
 - Short Grit Scale^{3,4}
- Optimism
- Determination/courage
- Satisfaction with life
 - SWL⁵
- Benefit Finding
- Gratitude
- Forgiveness
- Subjective Well-being
 - SWBS⁶
 - PROMIS Affect/Well-being⁷
- Sense of Coherence

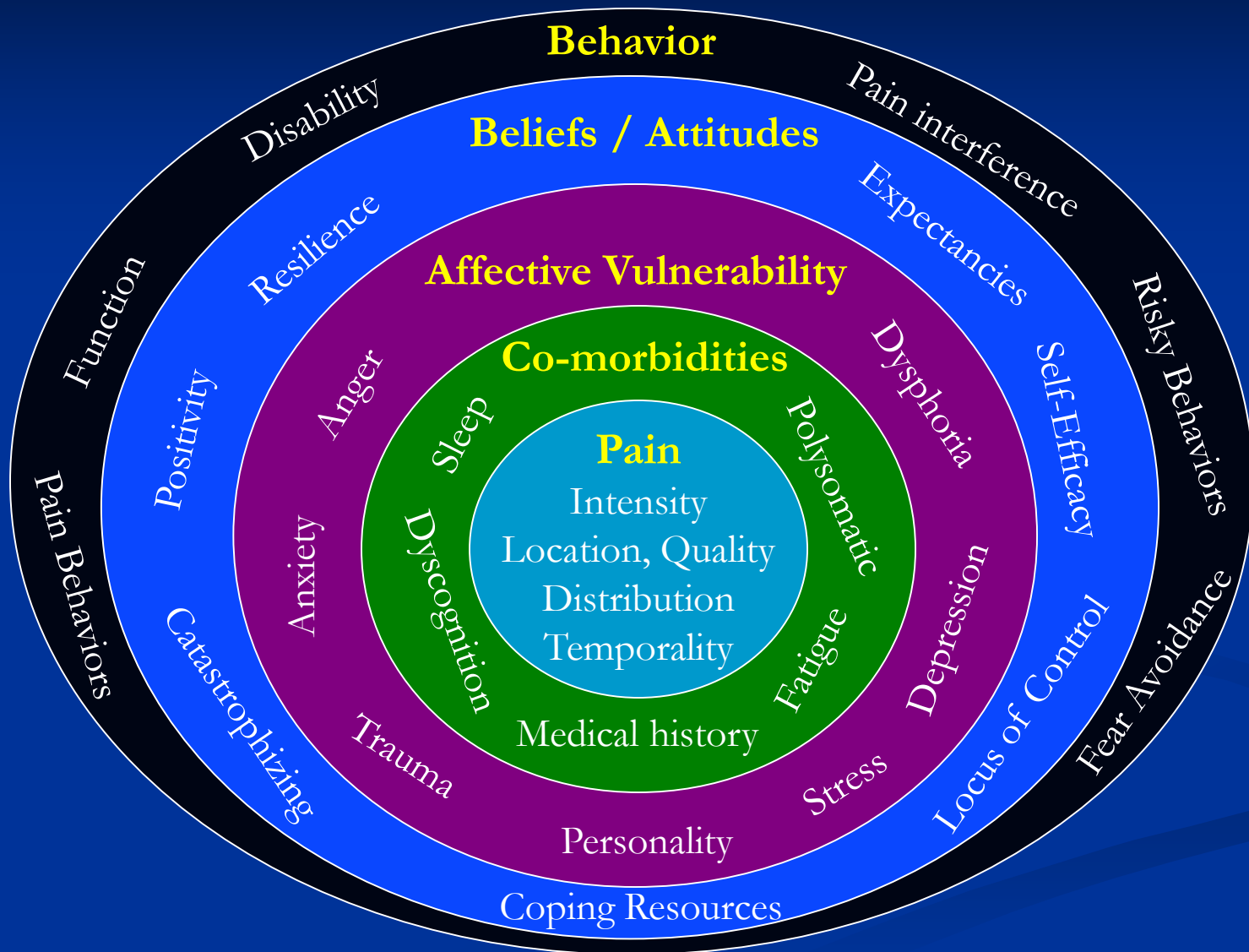
Acceptance

- CPAQ

Resilience and Positive Affect: ¹Watson 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. ²Hassett AL, et al. The relationship between affect balance style and clinical outcomes in fibromyalgia. *Arthritis and Rheumatism*. 2008;59(6):833-40. ³Duckworth AL, et al, Grit: perseverance and passion for long-term goals. *Journal of personality and social psychology*. Jun 2007;92(6):1087-1101. ⁴Duckworth AL, et al. Development and validation of the short grit scale (grit-s). *Journal of personality assessment*. Mar 2009;91(2):166-174. ⁵Diener E, et al. The Satisfaction With Life Scale. *Journal of personality assessment*. Feb 1985;49(1):71-75. ⁶Diener E. *Assessing Well-Being: The Collected Works of Ed Diener*. New York: Springer; 2009. ⁷Cella 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-36¹
 - WHO-DAS 2.0²
- Pain Interference
 - BPI³ (interference)
- Disability
 - PDI⁴

Pain Behaviors

- PROMIS⁵

Fear Avoidance

- TSK⁶

Health Risk Behaviors

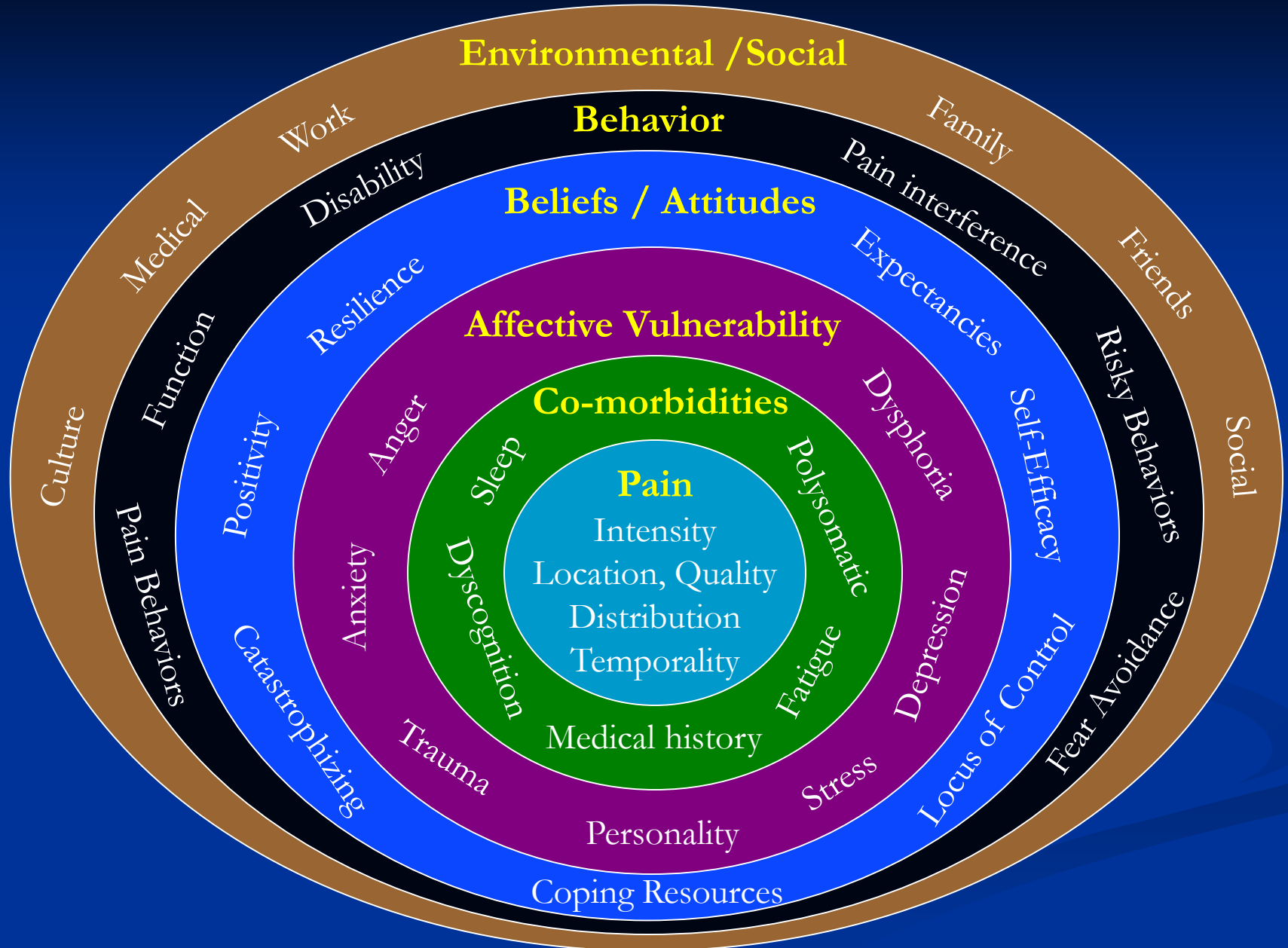
- Smoking⁷
- Alcohol⁸
- Recreational drugs⁹

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

Pain Behaviors and Fear Avoidance: ⁵Revicki DA, et al. Development and psychometric analysis of the PROMIS pain behavior item bank. Pain. 2009;146(1-2):158-69. ⁶Burwinkle, 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: ⁷Heatherton 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. ⁸Ewing JA. Detecting alcoholism. The CAGE questionnaire. JAMA, 1984;252(14):1905-7. ⁹Brown, 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
 - WHYMPI¹
- Social Enfranchisement
 - PE²

Family

- Dyadic Adjustment
 - DAS³

Work

- Work Productivity/Impairment
 - WPAI⁴

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

Family: ³Spanier GB. The measurement of marital quality. J Sex Marital Ther

Work: ⁴Reilly 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?

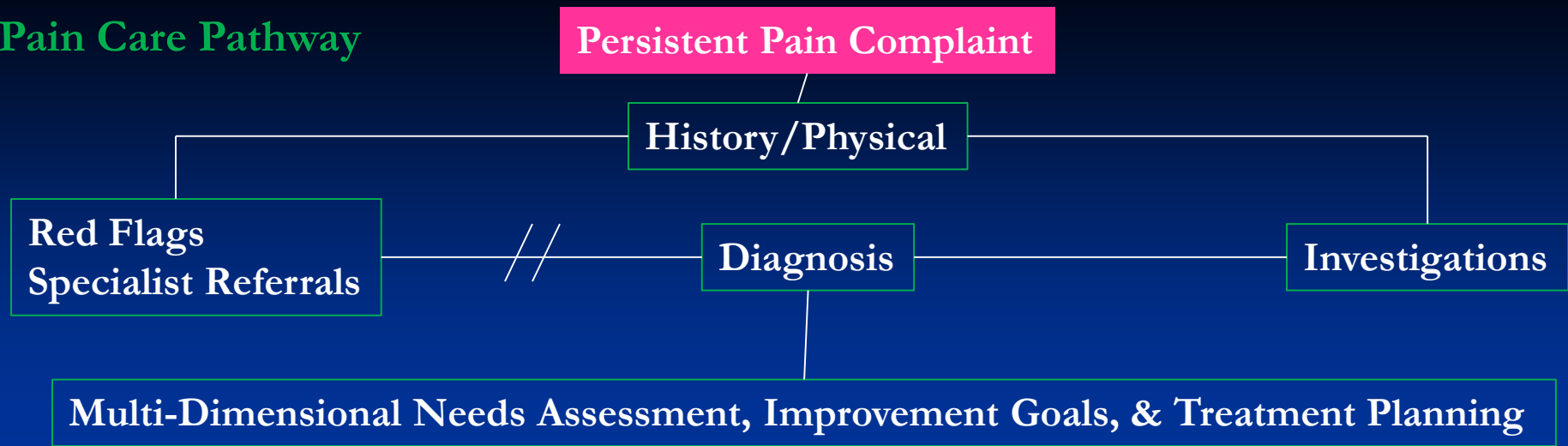


Do we need to assess everything?

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

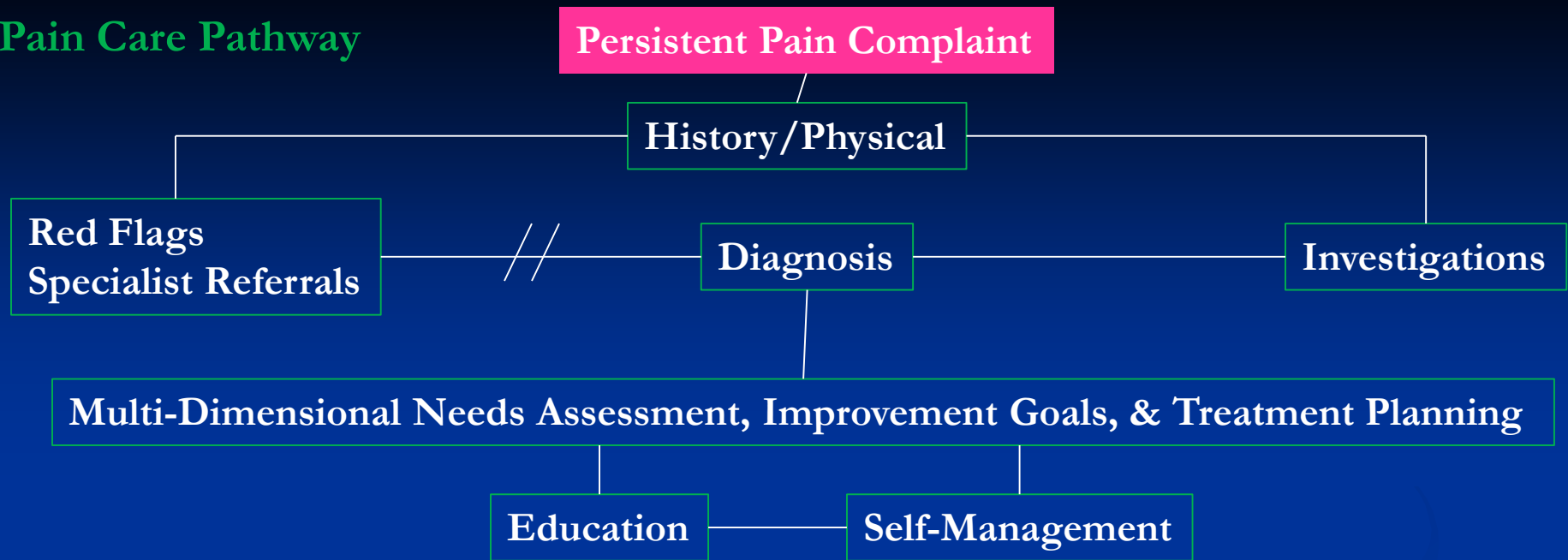
Sleep is poor

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)

E



R



A



S



E



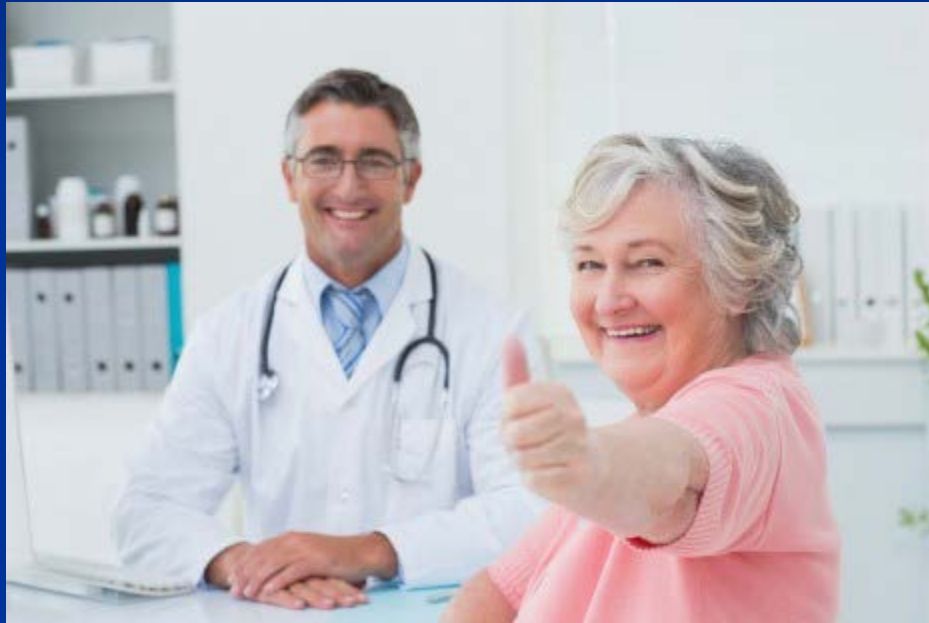
Exercise and Energy

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



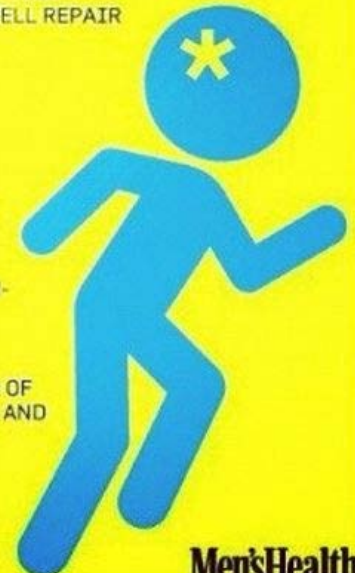
BOOSTS DECISION-
MAKING SKILLS



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.

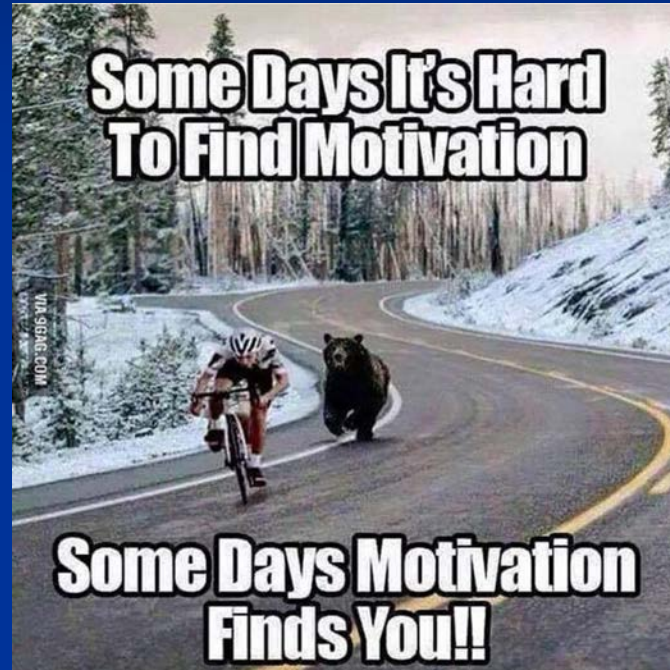
I don't live where I can exercise

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

Hassett & Williams. Best Pract Res Clin Rheumatol 2011;25:299-309.; Hauser et al. Arthritis Res Ther 2010;12:R79.; Jones et al. Rheum Dis Clin North Am 2009;35:373-91.; Arnold. Psychiatr Clin North Am. 2010;33:375-408. Peng. Reg Anes Pain Med 2012;37:372-82; Wang et al. N Engl J Med 2010;363:743-54; Haaz & Bartlett. Rheum Dis Clin North Am. 2011;37:33-46.; Langhorst et al. Rheumatol Int 2012 Epub. Ward et al. Musculoskeletal Care 2013;11:203-17.

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

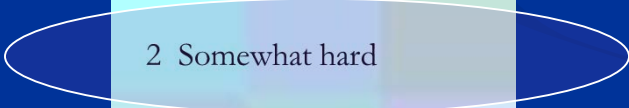


Aerobic Lifestyle Fitness



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.



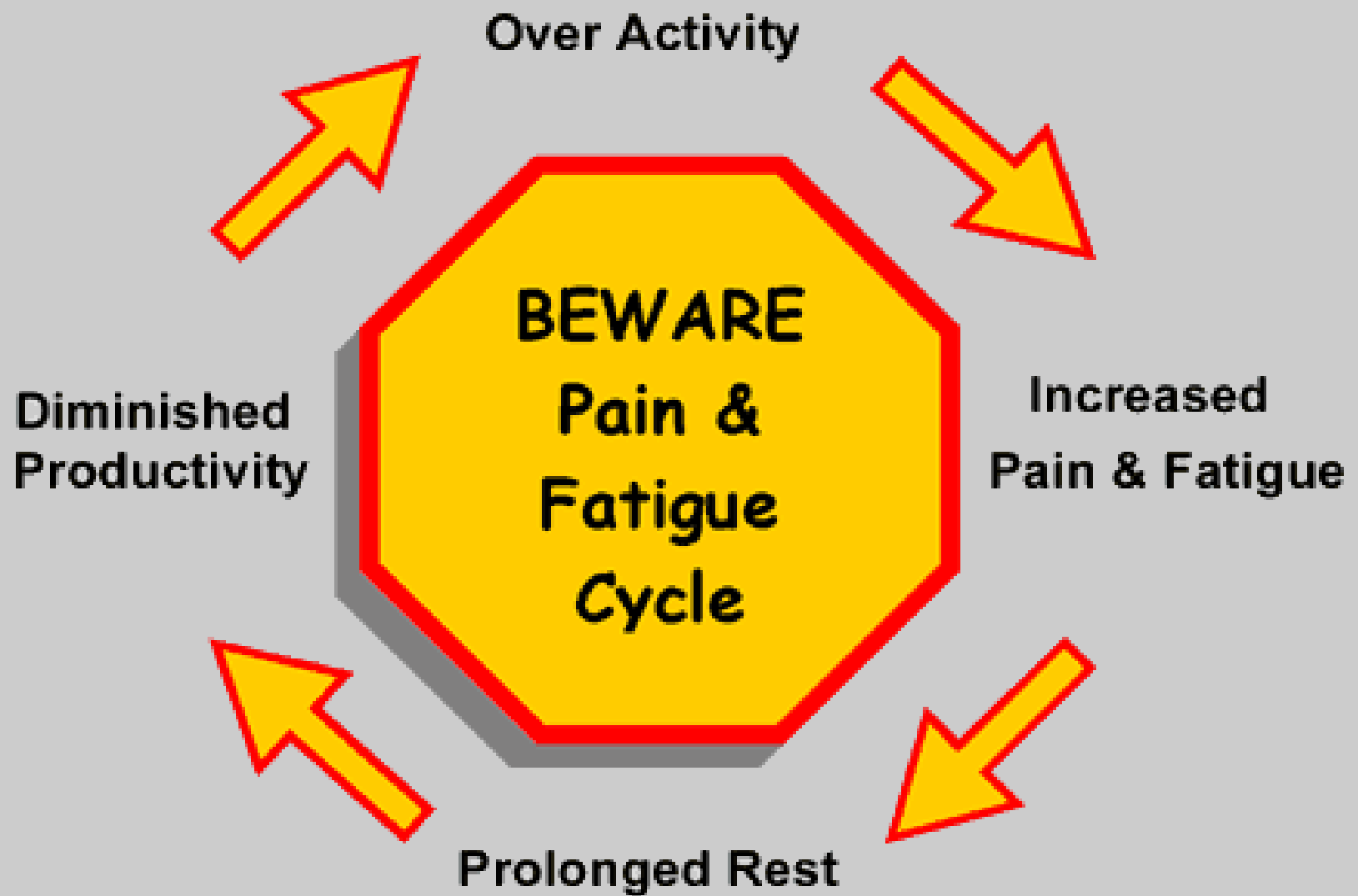
<i>RPE</i>
4 Maximal effort/strain
3 Quite hard
2 Somewhat hard
1 Quite easy
0 Minimal effort/strain

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

ERASE

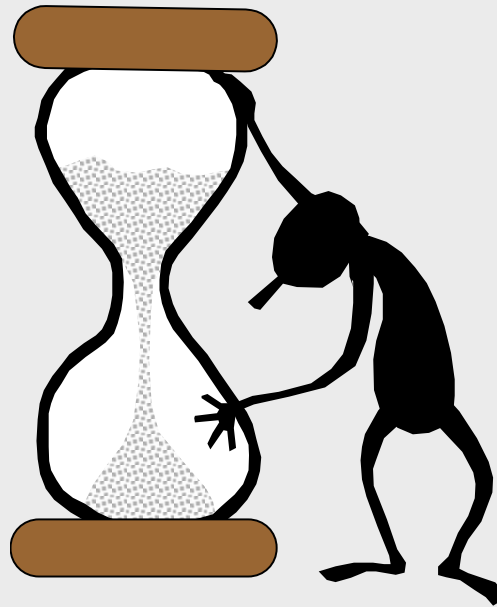
Energy Efficiency





Behavioral Activation Skills

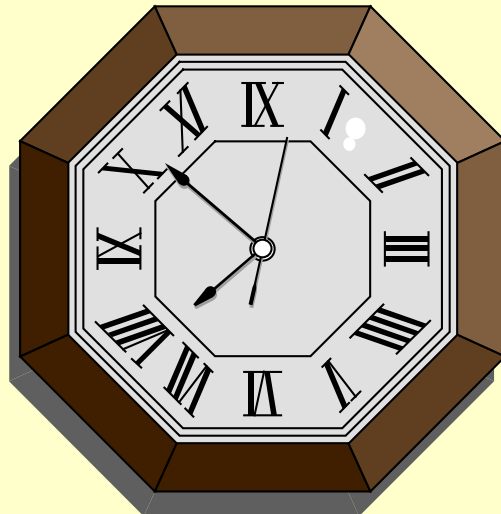
Time-Based Pacing



Activity-Rest-Activity-Rest

S
Y
M
P
T
O
M

L
E
V
E
L



Safe
Zone

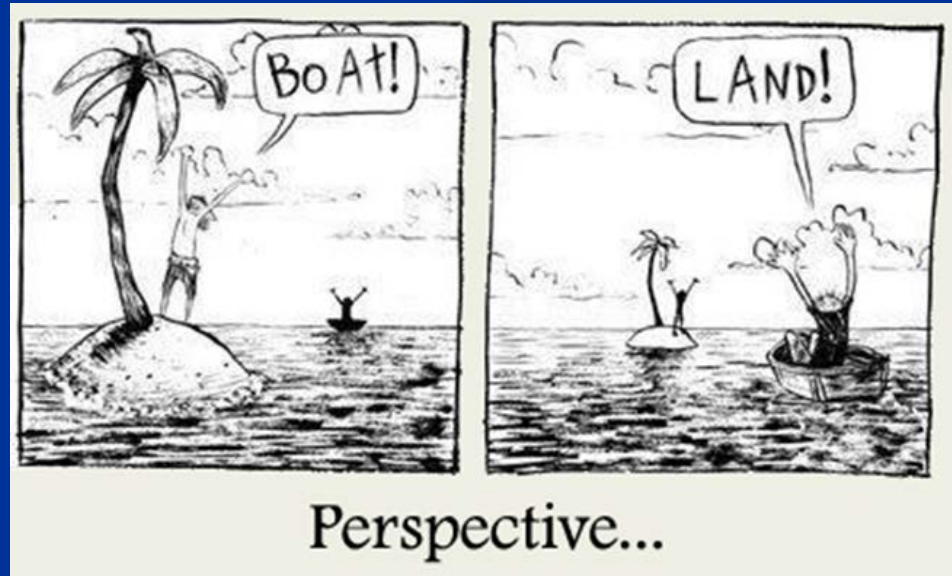
Danger
Zone

Flare
UP

Time

ERASE

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
I haven't done the laundry in weeks. It just hurts too much. _____ _____ _____ _____ _____ _____	• I'm a terrible wife • I can't do anything anymore • My husband will be angry with me EXAMPLE _____ _____ _____	• Guilt • Worthlessness • Anxiety _____ _____ _____	• Having fibromyalgia is not my fault, and it does not mean I am a bad wife • There are many things I can do without help, but laundry is not one of them • If I explain to my husband about my pain and ask for his help, he'll understand _____ _____

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



Visual Imagery



Meditation



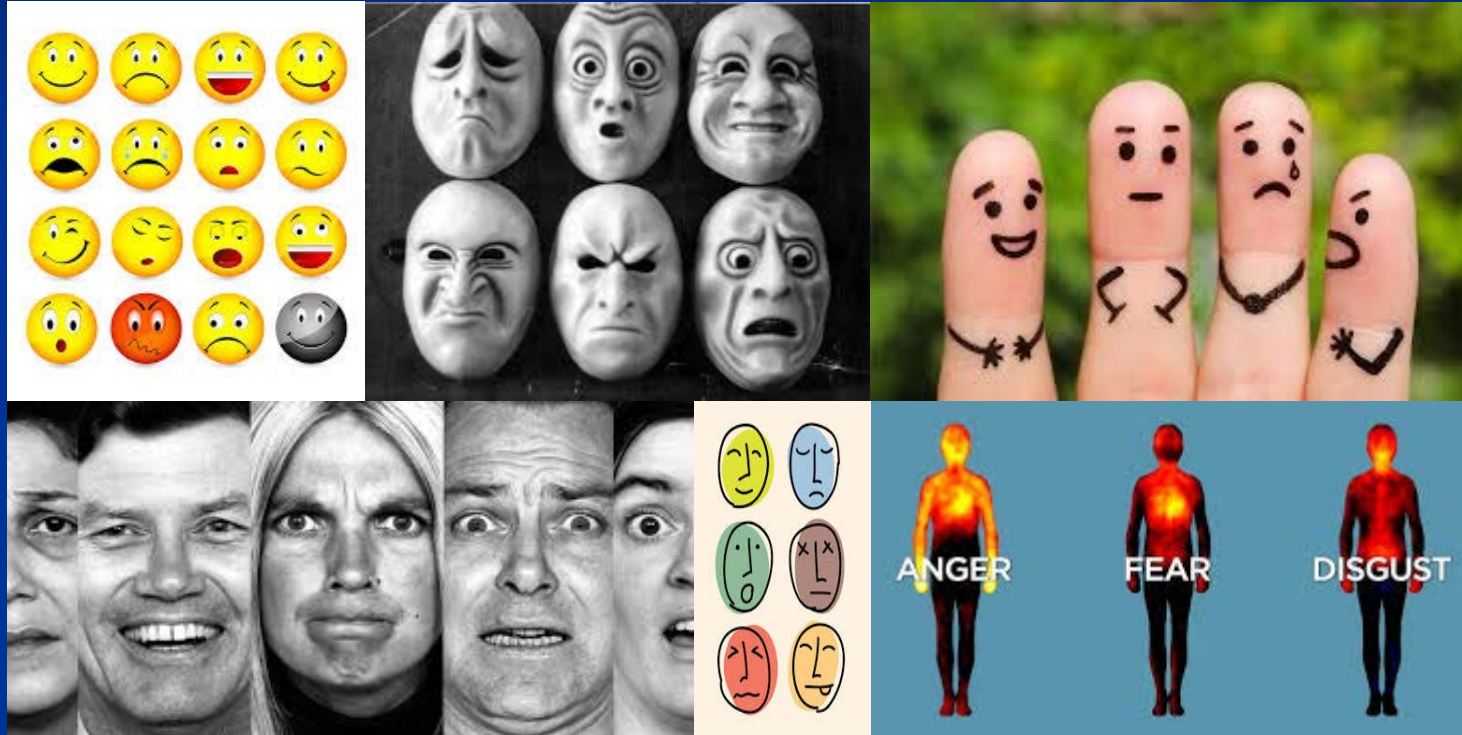
YOGA



Biofeedback

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

- 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



The Problem Solving Cycle Worksheet

Step 6
Review and Evaluate
What happened?



Step 5
Develop Workable Plan

Plan:

Barriers:

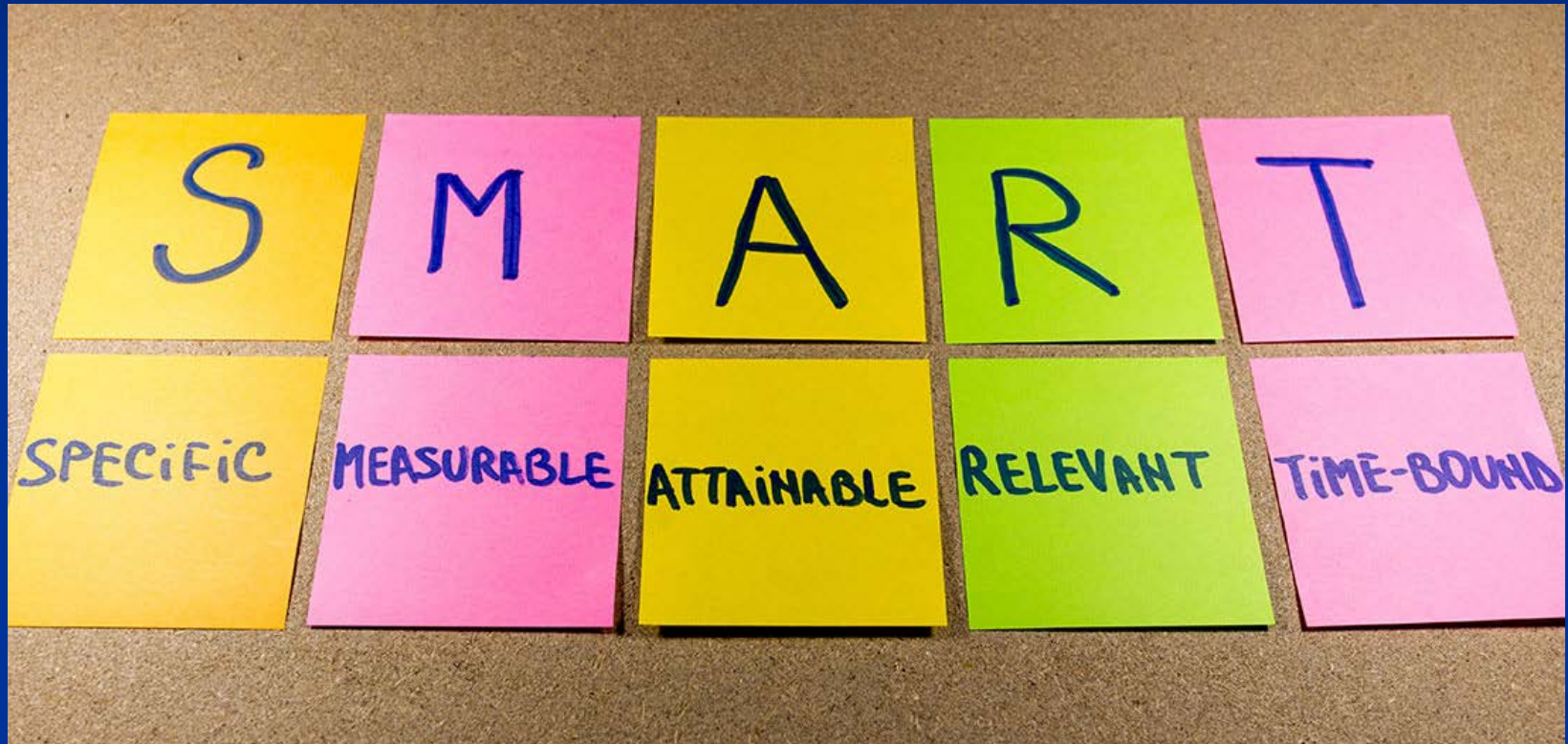
Choices:
Put your plan into action
Barriers too great (go back to Step 3)
Multiple problems (go back to Step 1)

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



Choose one solution to try:

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



Dr. -Patient

Awkward
Tense
Confrontational



Friends

Caring at first
Withdrawal
Dependent
Loss



Family

Withdrawal
Impatience
Shifting roles
Dependence
Loss
Loss of Self-esteem



Employer and co-workers

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

ERASE

Education



Educational Resources



- Self-help books on Chronic Pain

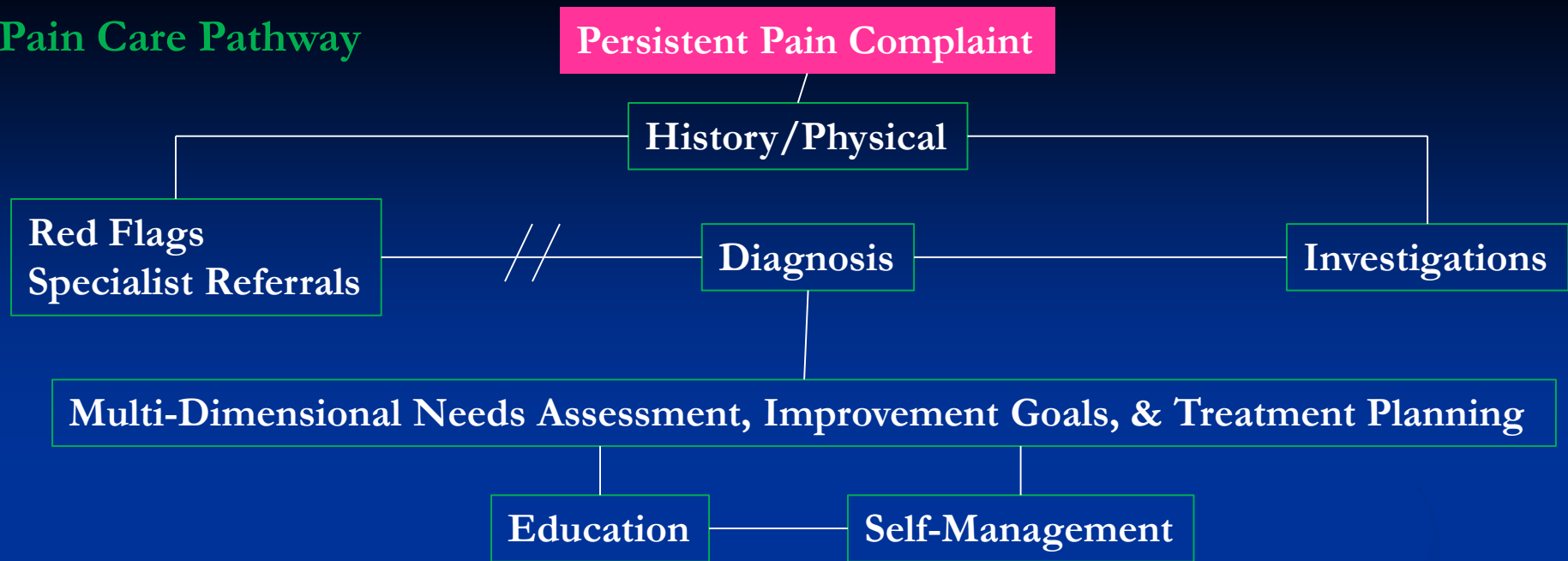
-Amazon lists 100 (1/2018)



- Subscription magazines
- Patient organizations



Pain Care Pathway



Self-management helped:

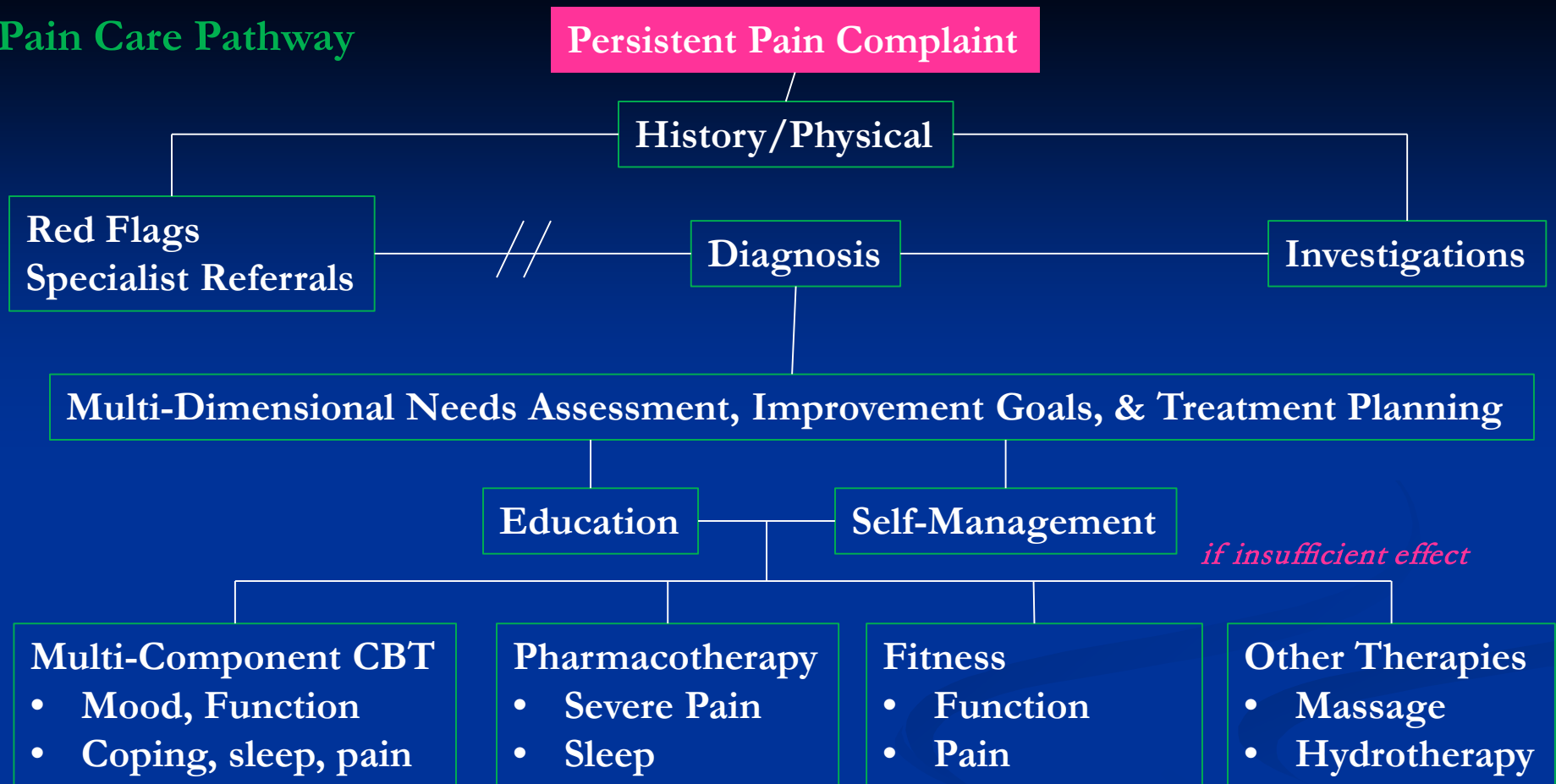
- Increase functioning with pacing but pain remained
- Doing some pleasant activities
- Sleeping a little better

Still worried and anxious about retirement

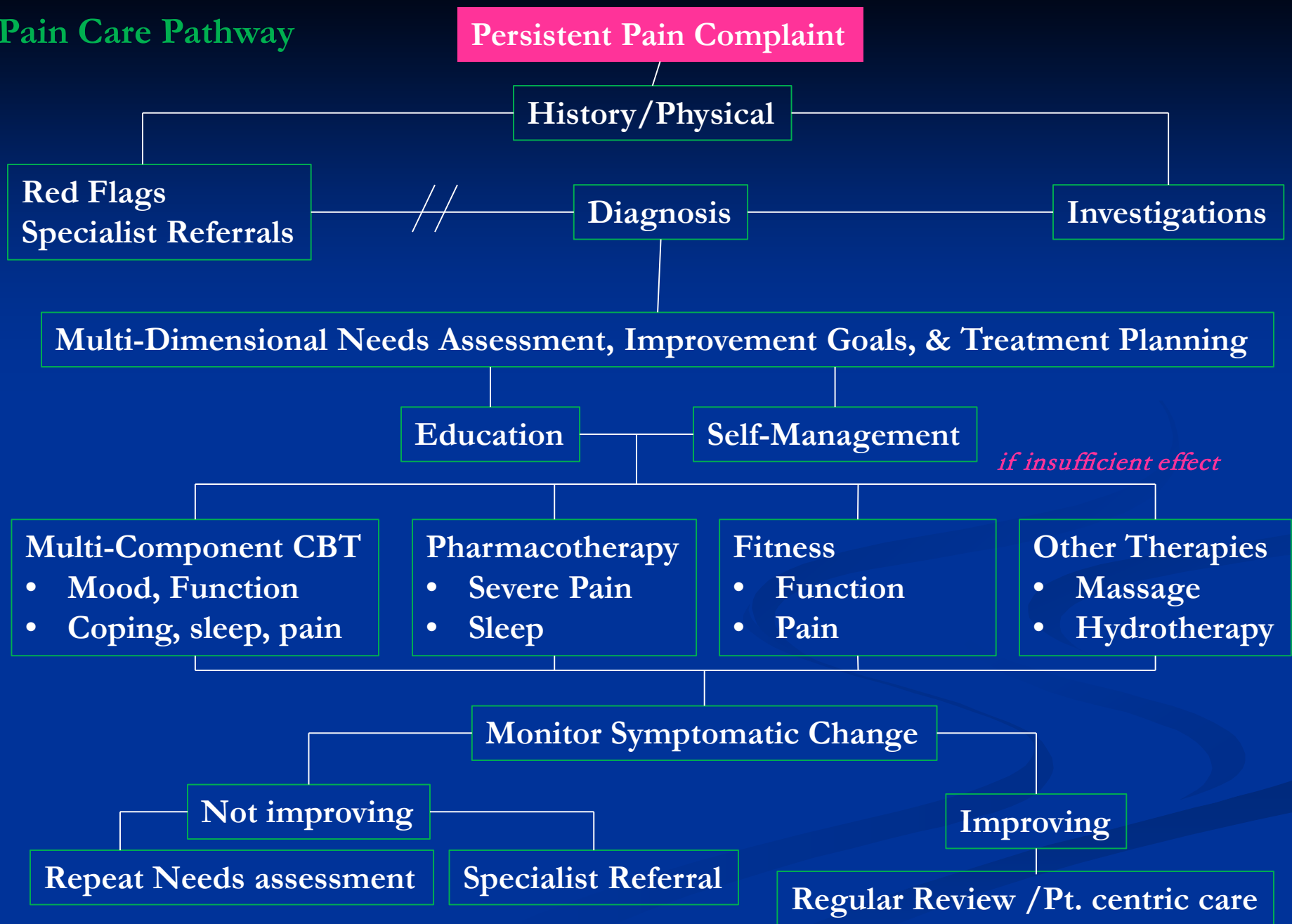
Not able to exercise

Can get husband to engage in activities with her

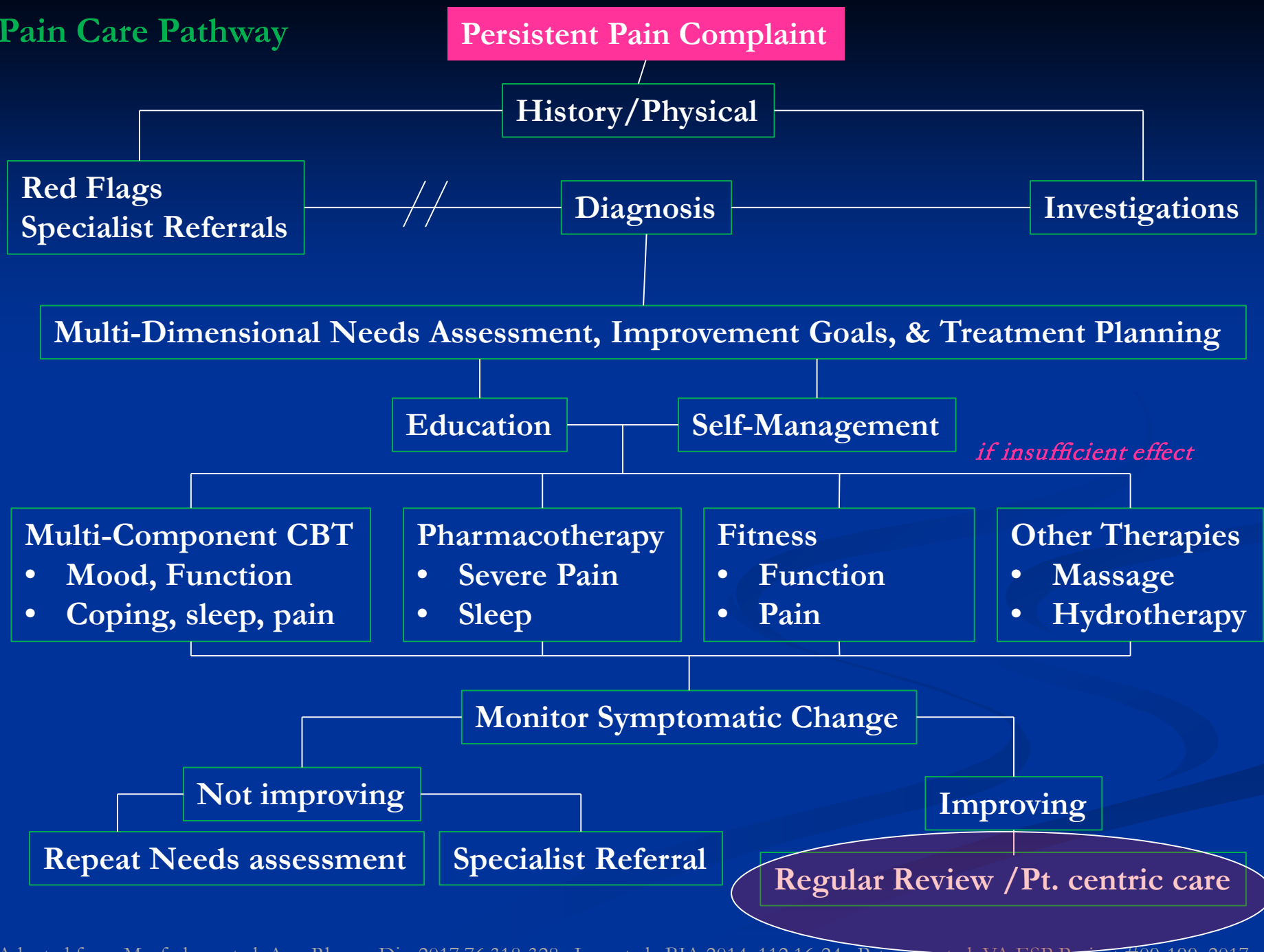
Pain Care Pathway



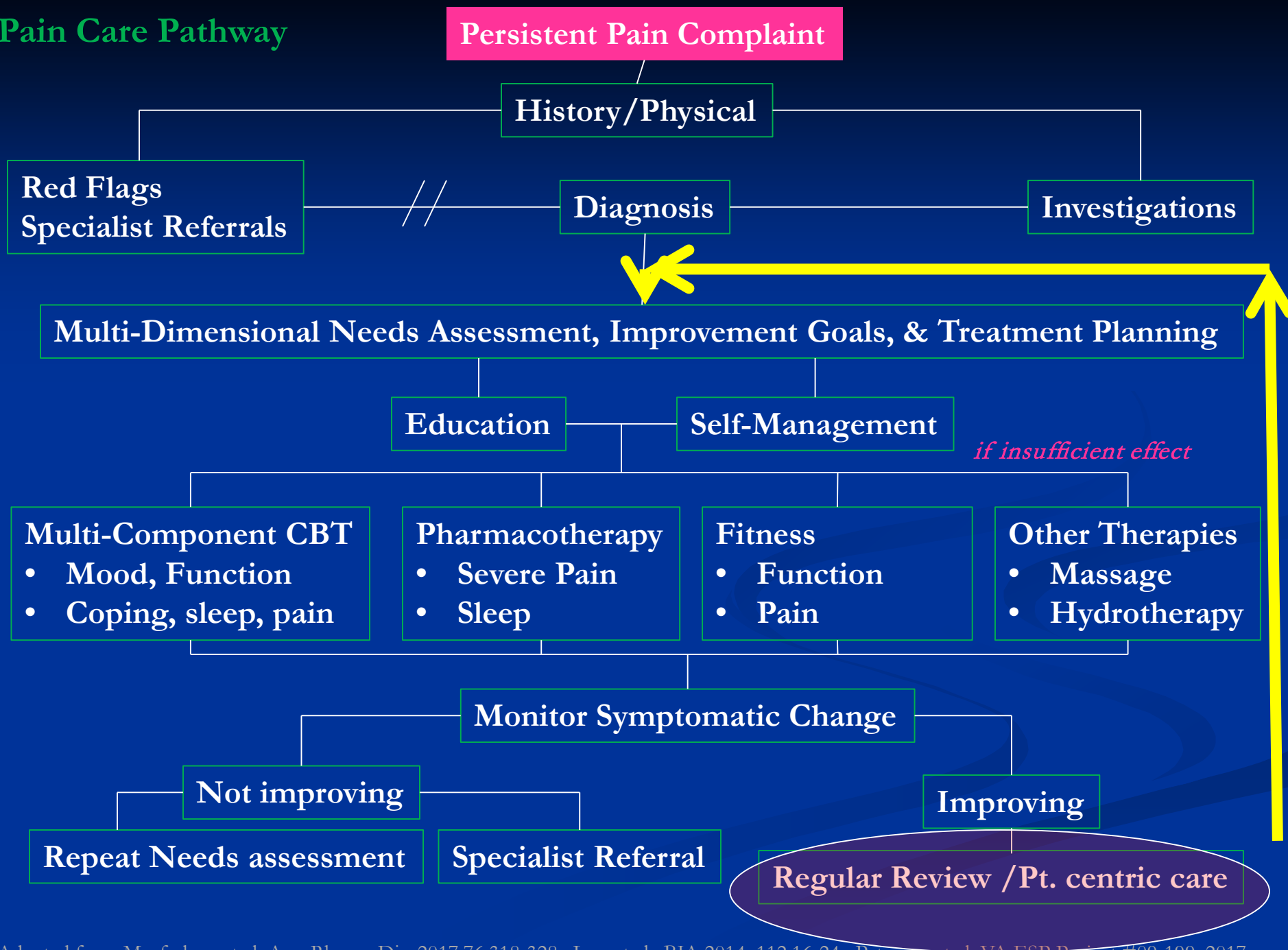
Pain Care Pathway



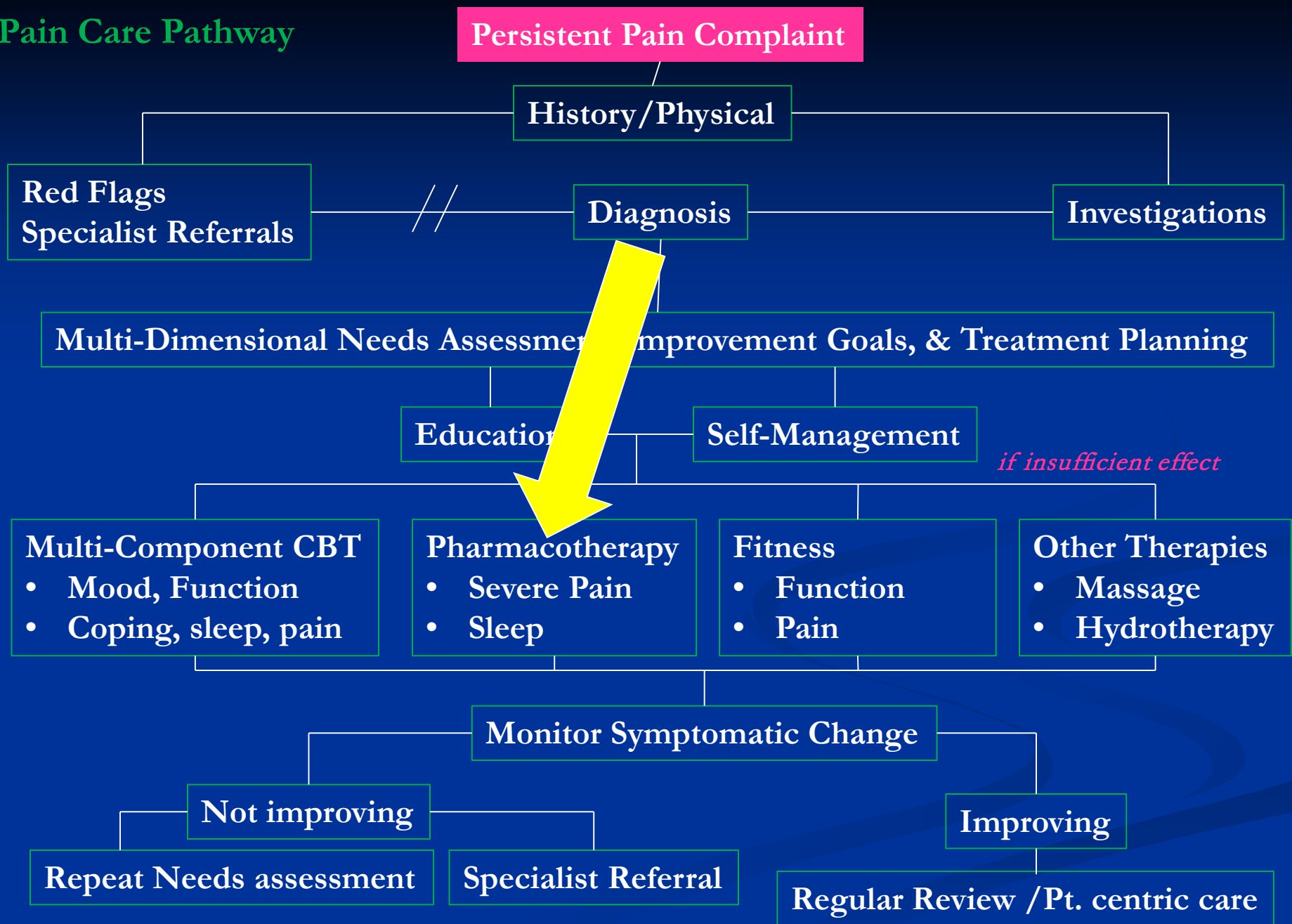
Pain Care Pathway



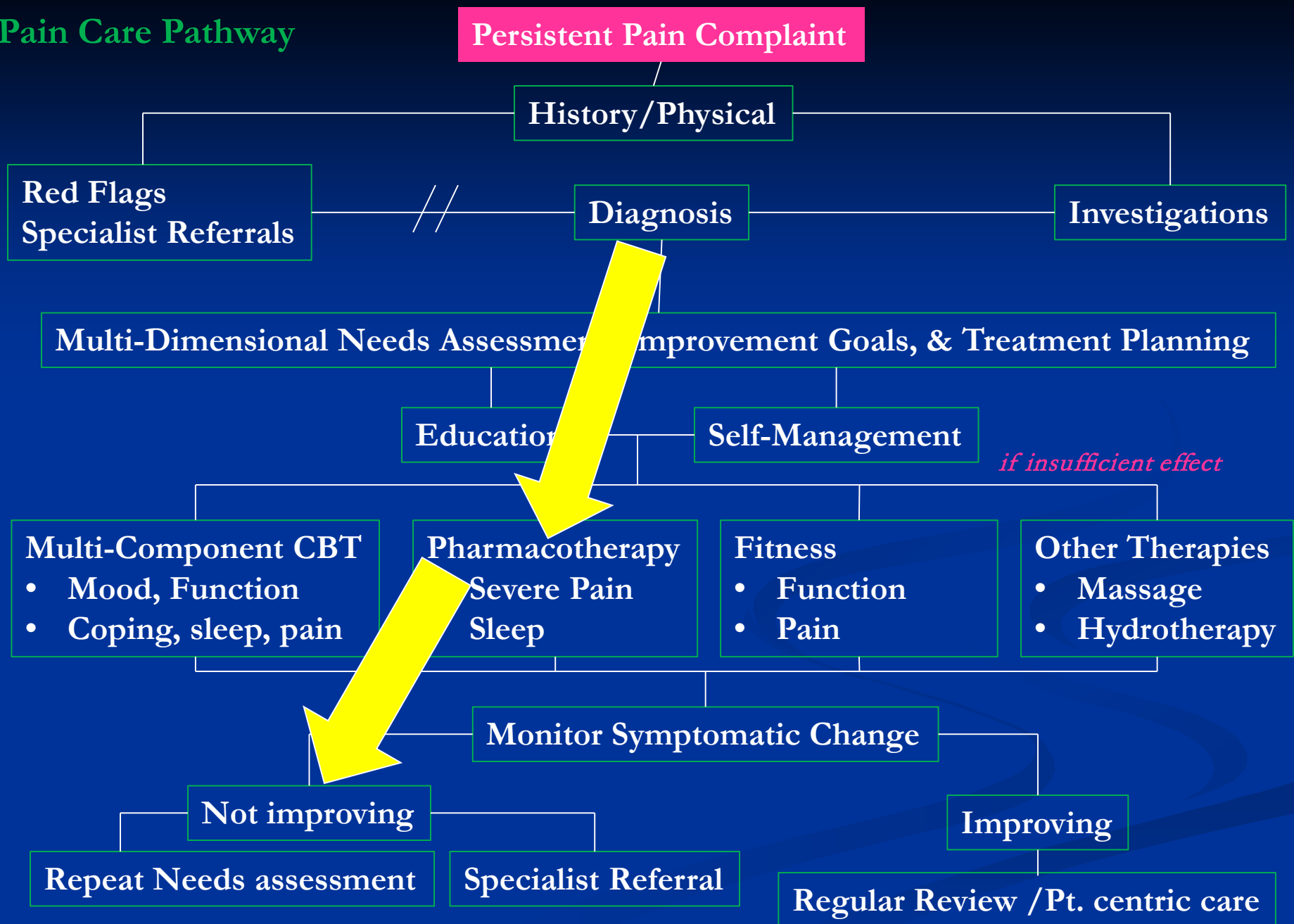
Pain Care Pathway



Pain Care Pathway



Pain Care Pathway



Pain Care Pathway

