Montana Integrated Behavioral Health Webinar:

Alternatives to Pain Management

Monday October 2nd 2017, 2-3pm MST

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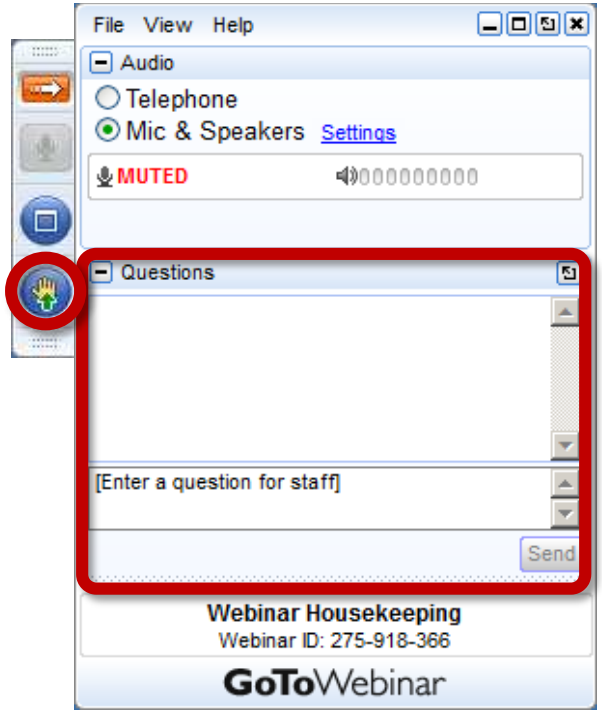

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Montana Integrated Behavioral Health Webinar:

Alternatives to Pain Management

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National Council for Behavioral Health

About this webinar….

- Overview of non pharmacological - evidenced based practices to treat chronic pain
- Review of non pharmacological - evidenced based practices to treat chronic pain: Cognitive Behavioral Treatment for Chronic Pain (CBT-CP), Acceptance and Commitment Therapy (ACT), and Mindfulness
- This webinar is based on: Murphy, J.L., McKellar, J.D., Raffa, S.D., Clark, M.E., Kerns, R.D., & Karlin, B.E. Cognitive behavioral therapy for chronic pain among veterans: Therapist manual. Washington, DC: U.S. Department of Veterans Affairs.
  https://www.va.gov/painmanagement/docs/cbt-cp_therapist_manual.pdf

Objectives

- Understand what is chronic pain and acute pain and their differences
- Gain an understanding and recognition treatment options for chronic pain: analgesic medications, invasive medical treatment options, non-invasive treatment options
- Participants will identify and describe three non-invasive treatment options for chronic pain
- Participants will understand influential factors in pain experience: psychological, behavioral, social
- Review measurement based care for chronic pain: screening tools over the continuum of care

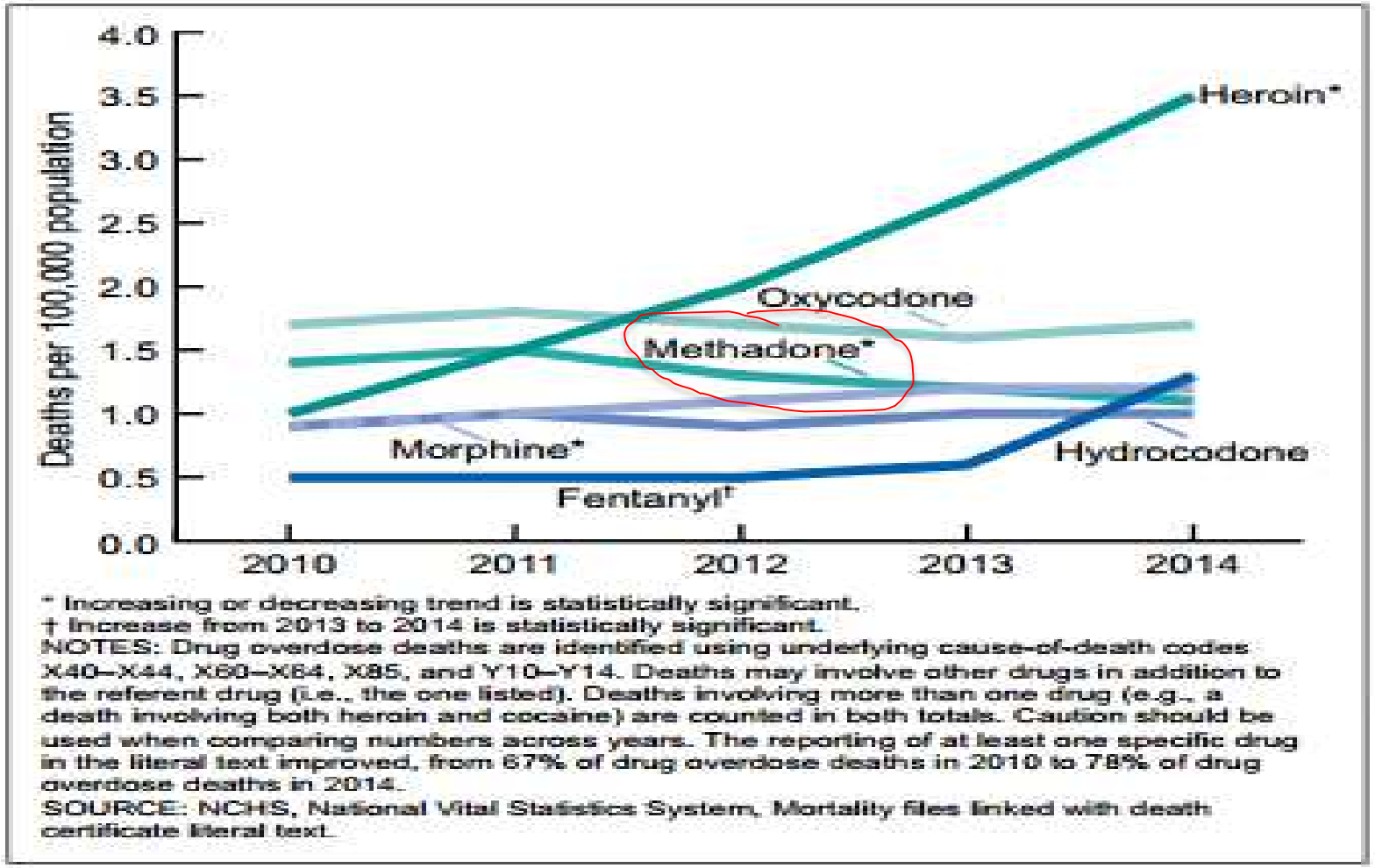
National Opioid Overdose Epidemic as of 2015

- Drug overdose is the **leading cause of accidental** death in the US, with 52,404 lethal drug overdoses in
- Opioid addiction is driving this epidemic, with 20,101 overdose deaths related to prescription pain relievers, and 12,990 overdose deaths related to heroin
- From 1999 to 2008, overdose death rates, sales and substance use disorder treatment admissions related to prescription pain relievers increased in parallel.
  - overdose death rate in 2008 was nearly four times the 1999 rate;
  - sales of prescription pain relievers in 2010 were four times those in 1999;
  - substance use disorder treatment admission rate in 2009 was six times the 1999 rate

National Opioid Overdose Epidemic as of 2015

- In 2012, 259 million prescriptions were written for opioids, which is more than enough to give every American adult their own bottle of pills.
- Four in five new heroin users started out misusing prescription painkillers.
- 94% of respondents in a 2014 survey of people in treatment for opioid addiction said they chose to use heroin because prescription opioids were “far more expensive and harder to obtain.”

Overdose Deaths



* Increasing or decreasing trend is statistically significant.
† Increase from 2013 to 2014 is statistically significant.
NOTES: Drug overdose deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Deaths may involve other drugs in addition to the referent drug (i.e., the one listed). Deaths involving more than one drug (e.g., a death involving both heroin and cocaine) are counted in both totals. Caution should be used when comparing numbers across years. The reporting of at least one specific drug in the literal text improved, from 67% of drug overdose deaths in 2010 to 78% of drug overdose deaths in 2014.
SOURCE: NCHS, National Vital Statistics System, Mortality files linked with death certificate literal text.

Figure 1. Age-adjusted rates for drug overdose deaths involving selected opioids: United States, 2010–2014

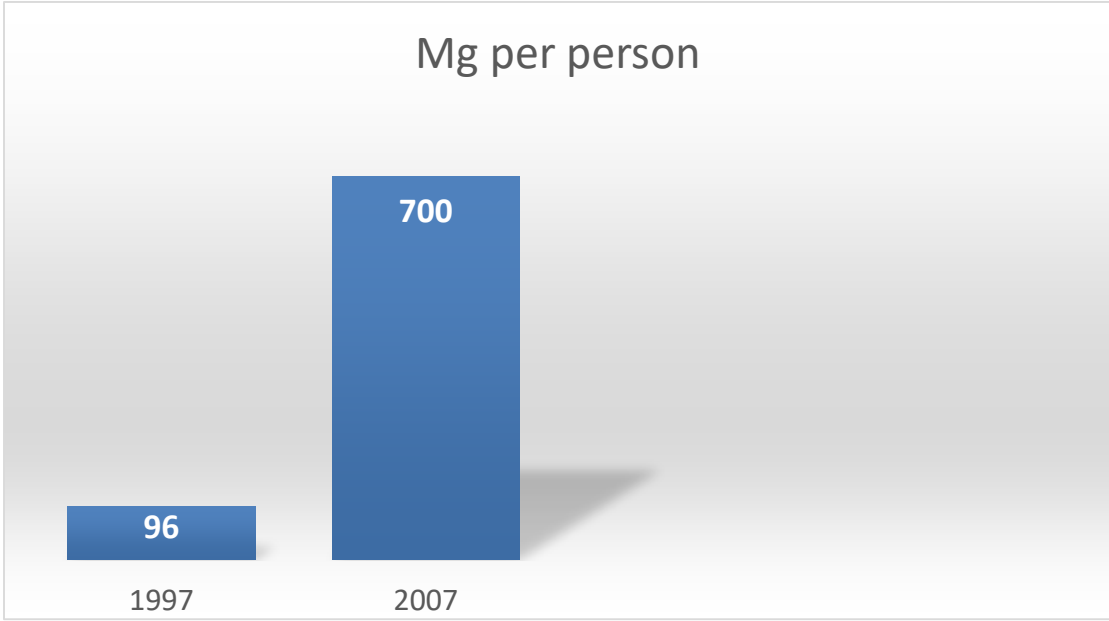
<u>Conclusion:</u> Rising rate of overdose deaths is driven largely by Heroin and Fentanyl

Warner et al. ***National Vital Statistics Report,*** **2016;65(10).**

Opioid increase

Drug distribution through the pharmaceutical supply chain was the equivalent of 96 mg of morphine per person in 1997

and approximately 700 mg per person in 2007, an increase of >600%.[2]



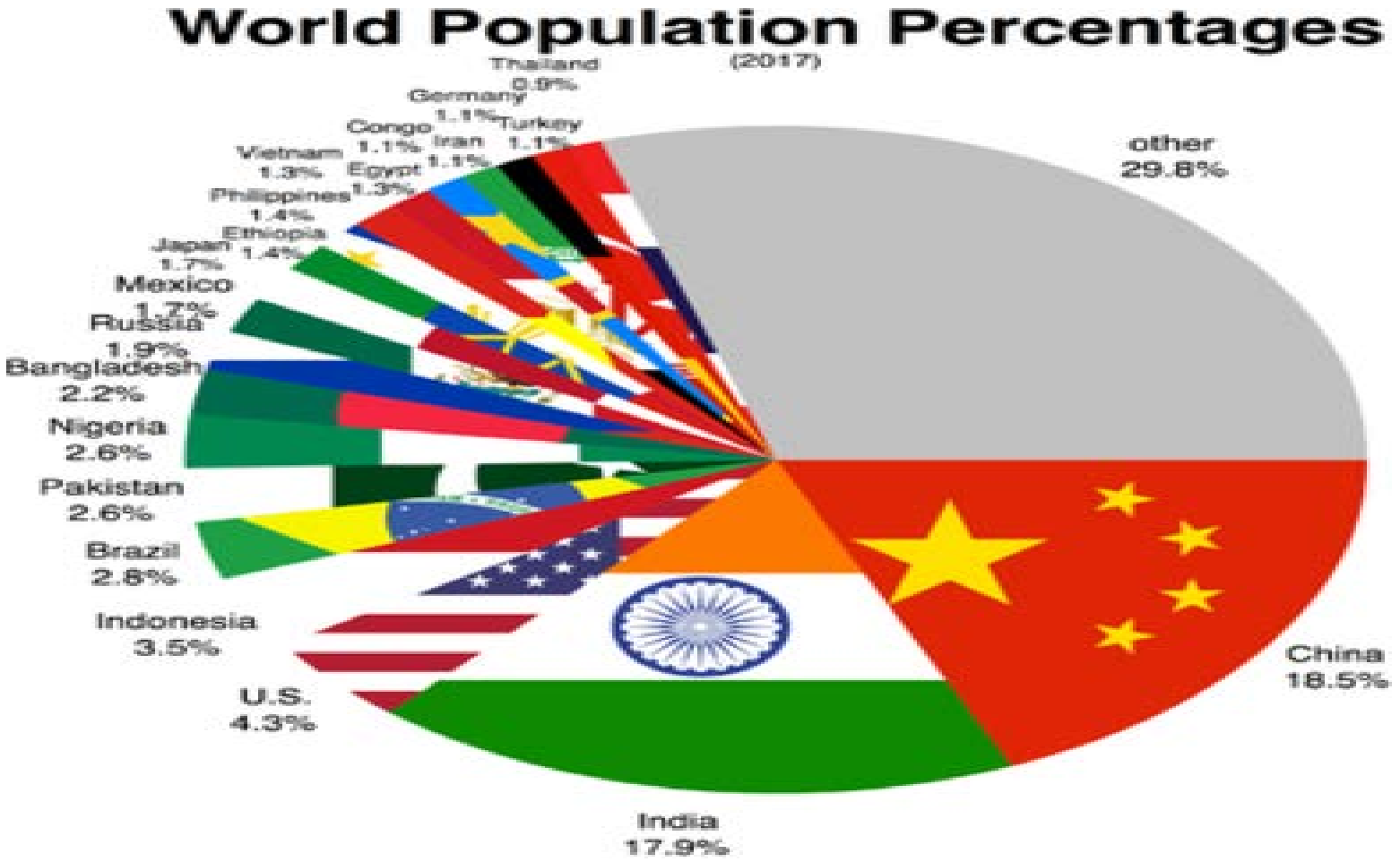
Institute of Medicine
Relieving Pain in America 2011

"Pain affects millions of Americans; contributes greatly to national rates of morbidity, mortality, and disability; and is rising in prevalence."

IOM (Institute of Medicine). 2011. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research. Washington, DC: The National Academies Press.

U.S. consumption

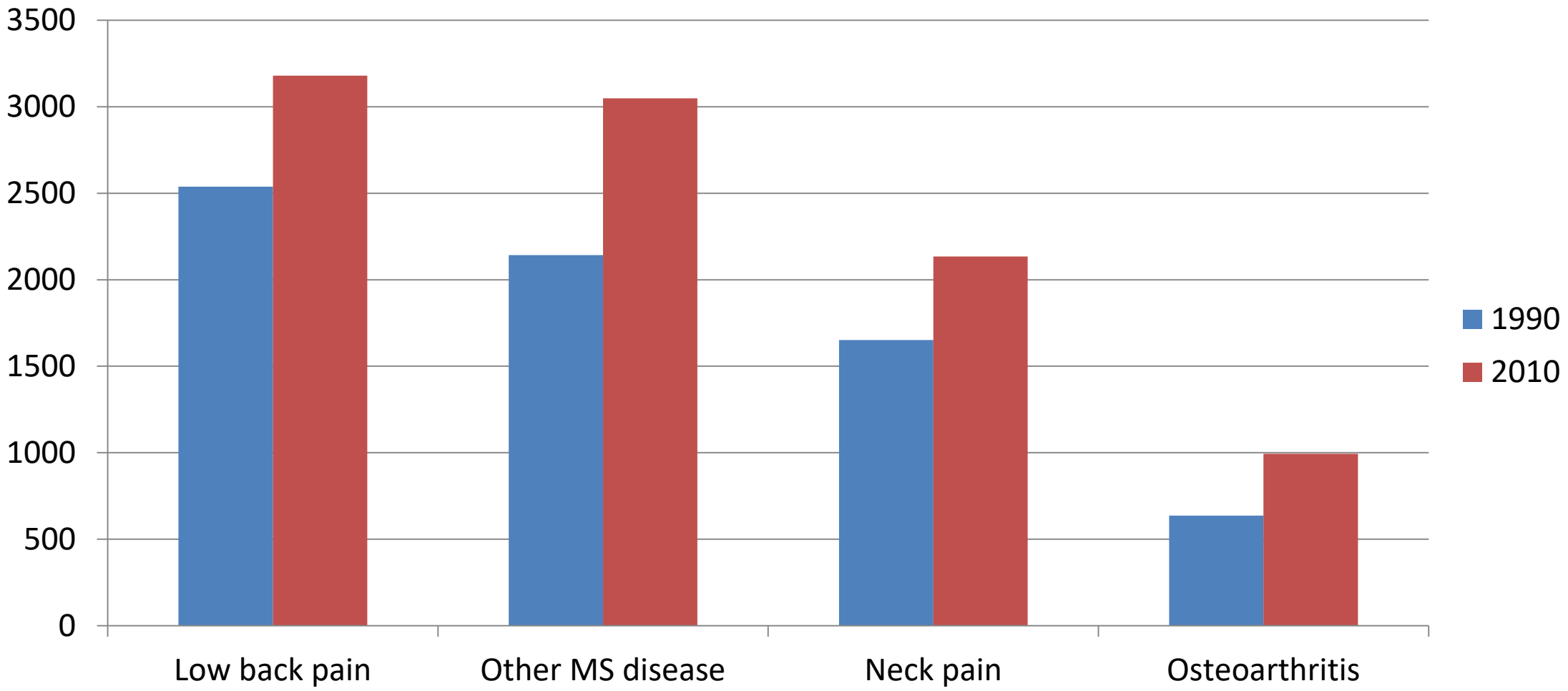
The United States has 4.6% of the world's population.



Yet we consume 80% of the world's opioids.

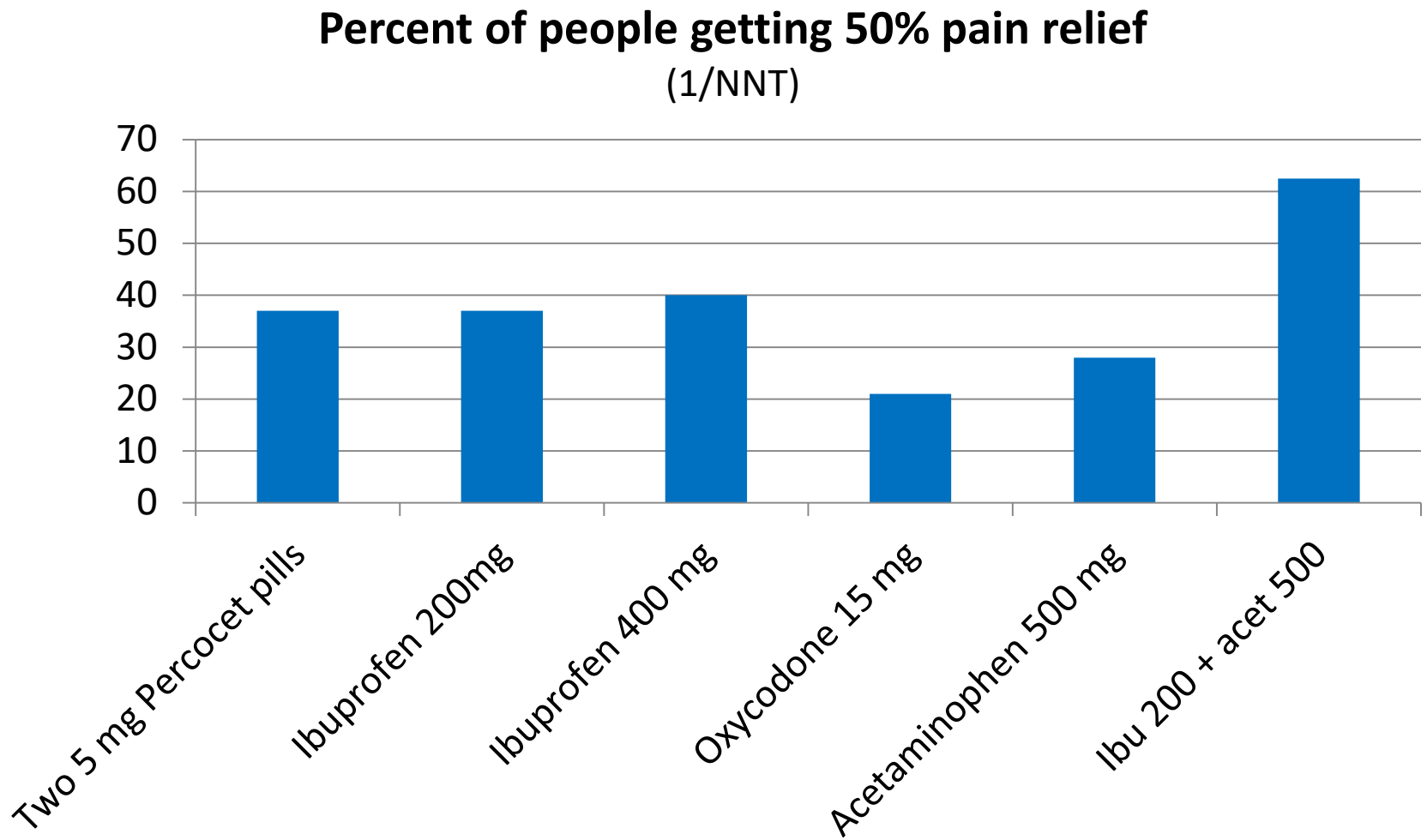
The State of US Health

Years lived with disability (in thousands)[3]



Effectiveness of pain meds (from Cochrane reviews)

(References 17,18,19,20)



Adverse Effects of Opiates

Short-term

- Sedation
- GI Intolerance
  - Constipation
  - Nausea
  - Vomiting

Long-term

- Tolerance
- Dependence
- Hyperalgesia*

Mood/Pain Connection

- Depression
  - Lowers pain threshold
- Anxiety
  - Increases muscle tension

Pain is REAL

- An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.

International Association for the Treatment of Pain

Acute and Chronic Pain

Acute Pain

- Less than 3 months
- Is a symptom
- Identified cause; body's response to injury
- Diminishes with healing and responds to treatment

Chronic Pain

- More than 3 months
- Is a condition
- May develop after incident, may have known or unknown cause
- Persists beyond expected healing time and/or despite treatment

Chronic Health Condition

Chronic Pain

- More than 3 months
- Is a condition
- May develop after incident, may have known or unknown cause
- Persists beyond expected healing time and/or despite treatment

❖ Pain continues in the absence of ongoing tissue damage, the nervous system itself is misfiring pain signals

❖ Chronic pain, therefore, is best understood as a chronic disease to be managed versus an acute symptom to be cured

Types of Pain

Nociceptive Pain

- Pain that is caused by damage to body tissue and is based on input by specialized nerves called nociceptors
- Nociceptors sense danger to soft tissues such as muscles, bones, ligaments, and tendons
- Most nociceptive pain is musculoskeletal, and is often described as aching or deep

Neuropathic Pain

- Pain that occurs when there is nerve damage that typically involves either the peripheral or central nerves
- It is often described as burning, shooting, tingling, or electric

Headache pain does not fall into either of the above classes but is another large category of painful conditions:

Headache Pain

- Pain that involves disturbance of sensitive structures around the brain
- Sensation is usually in the forehead, eyes, or upper back/neck areas
- Pain is often described as a tight band, pounding, throbbing, or dull

https://www.va.gov/painmanagement/docs/cbt-cp_therapist_manual.pdf

Pain Conditions – Back Pain

- **Low back pain** (LBP or lumbago) is the most common form of pain and the most fiscally costly worldwide in terms of medical visits and loss of work productivity (Deyo & Weinstein, 2001).
  - Most people with acute LBP recover in a matter of weeks but for about 10% the pain will become chronic (Costa et al., 2012).
  - Many individuals who experience chronic LBP report high levels ***of fear of movement*** and consequently are prone ***to deconditioning*** of the muscles leading to greater disability.
  - LBP may be due to factors such as herniated discs, degenerative disc disease, spinal stenosis, or arthritis, but the vast majority of back pain is due to muscle strain (Deyo & Weinstein, 2001).
- **Middle and Upper Back Pain - ** less common than LBP because the bones in these areas do not move as often
  - pain is most often related to muscle sprain or overuse, herniated discs, or arthritic processes
- **Neck Pain** (i.e., cervicalgia) is a common issue with about 65% of the population experiencing it at some point in their lives.
  - caused by activities that strain the neck such as poor posture or sleeping, muscle tightness, or whiplash from a motor vehicle accident.
  - Neck pain may also be associated with headache pain

Pain Conditions - Arthritis

- **Arthritis Osteoarthritis**: Osteoarthritis (OA) is the most common form of arthritis (Prieto-Alhambra & Judge, 2013) and occurs when cartilage that cushions the ends of bones and joints deteriorates. OA is often referred to as the **"wear and tear" disease** and is common among occupations that often involve physical labor (Morgenroth, Gellhorn, & Suri, 2012). The most common areas of the body affected include hands, feet, neck, low back, knees, and hips.

- **Rheumatoid Arthritis:** Rheumatoid arthritis (RA) is a chronic, systemic inflammatory disorder that primarily affects the joints. White blood cells accumulate in the joints causing swelling and pain. Progression of the disease can lead to destruction of cartilage, ligaments, and tendons. RA typically impacts functional status to a greater degree than **OA and is twice as prevalent in women than men**.

- **Tendonitis/Bursitis.** Tendonitis and bursitis involve inflammation of one of the tendons and bursae, respectively. Tendons are thick cords that join muscles to bones and inflammation causes pain and tenderness in the joints. Tendonitis is commonly **associated with sports involving repetitive motion such as swimming or throwing a ball** but can result from any repetitive movement involving the joints. Bursae are fluid-filled sacs found in joints that surround areas where tendons, skin, and muscle tissues meet. Bursae provide essential lubrication to the hips, knees, elbows, and heels. Damage can cause pain, swelling, and redness

- **Pelvic Floor Disorders.** Pelvic floor disorders occur when the area that supports the pelvic organs becomes weak or damaged. These may result in urinary or fecal incontinence, as well as persistent pain in the pelvic walls. Some of the common causes are **endometriosis, pelvic floor tension myalgia, pelvic inflammatory disease, fibroids, surgeries, and irritable bowel syndrome**. Pelvic pain is much more common among women, with one in seven experiencing some form of this chronic condition.

- **Gout.** Gout is a type of arthritis that is characterized by inflammation, tenderness, and stiffness in joints. The disorder **is more common in men than women** and often affects the big toe. Symptoms are episodic and flare-ups are typically associated with increased levels of uric acid. Uric acid levels are influenced by genetic factors but also by diet and lifestyle (Gheita, El-Fishwawy, Nasrallah, & Hussein 2012). 14

Pain Conditions - Arthritis

- **Peripheral Neuropathic Pain**. Peripheral neuropathy typically affects the hands and feet. It involves microvascular lesions in small blood vessels and its development is often associated with **high blood sugar secondary to diabetes**. Pain is commonly, but not universally, associated with peripheral neuropathy. Pain quality is often described as numb and tingling, pins and needles, electric, or burning, as opposed to being characterized as “pain.”

- **Radicular Pain**: Radicular pain is most commonly associated with LBP or neck pain, referred to as lumbar radiculopathy and cervical radiculopathy,. respectively. It radiates along a nerve due to inflammation or irritation of the nerve root and extends from the spinal cord to areas such as the buttocks and down the legs in the case of back pain, or down the arms in the case of neck pain. The sudden appearance of radicular pain, new muscular weakness, or the identification of radicular pain **that is not noted by medical providers is cause for immediate medical evaluation** (Gilron, Watson, Cahill, & Moulin, 2006). Radicular pain is typically described as burning, shooting, or shock-like (Atlas et al., 1996)

- **Phantom Limb Pain**: A phantom limb is the sensation that an amputated or missing limb is still attached to the body. Between 60 and 80% of individuals with an amputation experience phantom limb sensations and the majority of these sensations are painful (Sherman, Sherman, & Parker, 1984). In addition, pain at the site of the amputation, or stump, caused by nerve damage in the stump region is also common. Pain is variable from a dull ache to shooting and severe

- **Fibromyalgia:** Fibromyalgia (FM) is a disorder of unknown etiology associated with widespread pain, sleep disturbance, fatigue, and psychological distress among other symptoms. FM pain typically includes tender “trigger” points found in soft tissue of the back of the neck, shoulders, low back, hips, shins, and knees, and the pain is often described as a deep aching or burning. FM is about 7 times more common in women than men (Haviland, Banta, & Prezekop, 2011) and individuals with ***FM are 3 times more likely to have a comorbid diagnosis of major depression than individuals without FM***

- **Complex Regional Pain Syndrome**: Complex regional pain syndrome (CRPS), previously known as reflex sympathetic dystrophy syndrome or RSD, is a poorly understood pain condition that often starts after a minor injury or complication, usually to a hand, arm, foot, or leg, and often spreads. Type 1, the form most commonly seen, has no demonstrable nerve lesions while there is nerve damage in Type 2. Pain is described as severe and changes in the appearance and texture of the skin are often noticeable

Pain Conditions - Headaches

- **Tension-type**: . Tension-type headaches (TTH) are by far the most common type, accounting for over half of all headaches (ICHD, 2nd edition, 2004). The primary sensation associated with TTH is the feeling of a tight-band wrapped around one's head. These range in intensity from mild to moderate and also range in frequency from episodic to chronic. Criterion for chronic TTH is met when an individual experiences headaches for 15 days a month for at least 6 months (ICHD, 2nd edition, 2004).

- **Migraine:** Migraine headaches occur in about 10% of the population at some point in their lifetime (Rasmussen, Jensen, Schroll, & Olesen, 1991). They are classified as either with or without aura, defined by symptoms such as sensory or motor disturbance that precede or accompany the headache. Migraine headaches tend to be recurrent and are associated with a number of autonomic nervous system symptoms. The typical migraine headache is unilateral and pulsing in nature, lasts from 2 to 72 hours and may be associated with nausea, vomiting, sensitivity to light and sound, and aggravated by physical activity. Migraines are 2 to 3 times more common in women than men (ICHD, 2nd edition, 2004).

- **Cluster**: Cluster headaches involve severe unilateral pain that is orbital, supraorbital, or temporal, lasting 15 to 180 minutes, and occurring in frequency from every other day to up to 8 times per day (ICHD, 2nd edition, 2004). Painful episodes may be accompanied by tearing, nasal congestion, sweating, a drooping eyelid, or a contracted pupil. These all occur on the affected side of the face. The intense pain of cluster headaches is due to dilation of blood vessels creating pressure on the trigeminal nerve. However, the underlying cause of the dilation is not understood. This type of headache is much less common, affecting .1% of the population, and is 3 to 4 times more common in men than women (ICHD, 2nd edition, 2004).

- **Post-traumatic:** Headaches associated with head trauma (e.g. mild to severe traumatic brain injury) is common immediately following an injury, with a prevalence up to 90%. Up to 44% of patients report continued headaches 6 months following an injury (Nicholson & Martelli, 2004). The three most common presentation patterns are tension-type, migraine type, or cervicogenic (Gironda et al., 2009). Exposure to blasts and concussions while deployed make this type of headache more common among Veterans and military Servicemembers

- **Medication Overuse:** Medication overuse headaches, previously known as rebound headaches, are a secondary cause of chronic daily headaches due to the overuse of acute headache analgesics. Overuse is defined by treatment days per month and depends on the drug. Overuse is often motivated by the desire to treat headaches or a fear of future headaches, but regardless can make headaches refractory to preventative medications (Silberstein, Lipton, & Saper, 2007)

❖ May have more than one type

Medications for Pain

Category	Generic Name(s) *Not capitalized*	Brand Name(s) *Capitalized*
Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)	aspirin, acetylsalicylic acid (i.e., ASA)	Bayer Aspirin
	celecoxib	Celebrex
	etodolac	Lodine
	ibuprofen	Advil Motrin
	meloxicam	Mobic
	naproxen	Aleve Naprosyn
	piroxicam	Feldene
	salsalate	
Analgesic and Antipyretic	acetaminophen (i.e., APAP)	Tylenol
Opioid Analgesics	codeine	
	codeine + acetaminophen	Tylenol #3
	duragesic	Fentanyl patch
	hydrocodone + acetaminophen	Vicodin Norco Lortab Lorcet
	hydromorphone	Dilaudid
	methadone	
	morphine	MS Contin

Medications for Pain

Opioid Analgesics (continued)	oxycodone	Oxycontin
	oxycodone + acetaminophen	Percocet
	oxymorphone	Opana
Opioid and Antidepressant	tramadol	Ultram
Muscle Relaxants	baclofen	
	cyclobenzaprine	Flexeril
	methocarbamol	Robaxin
	tizanidine	Zanaflex
Topical Analgesics	capsaicin cream/patch	
	diclofenac gel	Voltaren
	lidocaine gel/cream/ointment/ patch	Lidoderm
	menthol-methylsalicylate cream	
Adjuvant Analgesics: Anticonvulsants	carbamazepine	Tegretol
	gabapentin	Neurontin
	pregablin	Lyrica
	topiramate	Topamax
	lamotrigine	Lamictal
Adjuvant Analgesics: Antidepressants	amitriptyline	Elavil
	duloxetine	Cymbalta
	nortriptyline	Pamelor
	venlafaxine	Effexor
Headache Analgesics	butalbital + acetaminophen + caffeine	Fioricet
	rizatritpan	Maxalt
	sumatriptan	Imitrex
	zolmitriptan	Zomig

Invasive Medical Treatment Options for Chronic Pain

- **Epidural Steroid Injections (ESIs)** are used for back pain complaints associated with conditions such as spinal stenosis or spinal disc herniation. ESIs include a combination of corticosteroids and local anesthesia that is injected into the epidural space around the spinal cord and nerves. The injection may be guided by fluoroscopy or x-ray. The effects of the injection **last from one week to six months**.

- **Nerve Blocks**: (aka, regional nerve blockade) are used for pain in the neck, back, feet or even the head. Nerve blocks may include local anesthetic and epinephrine, with corticosteroids, and/or opioids that are injected directly into the nerve group associated with reported pain. Nerve blocks can be used to treat painful conditions, to determine sources of pain, or to judge the benefits of more permanent treatments such as surgery.

- **Trigger point injections (TPI**) are used to relieve muscles where knots form **when muscles do not relax**. TPI is used in many muscle groups ranging from arms, legs, low back, and neck and is most associated with treatment of fibromyalgia and tension headache. The injection contains a local anesthetic that may include a corticosteroid.

- **Facet Injections.** Facet injections are used for those with chronic neck or back pain caused by **inflamed facet joints**, which are located between each set of vertebrae in the spine from the neck to the tailbone. A mixture of local anesthetic and corticosteroid medication is injected into the facet joint to reduce swelling and inflammation around the facet joint space.

- **Radiofrequency Ablation: (RFA)** is used to treat severe chronic low back pain. Radiofrequency waves produce high heat on specifically identified nerves surrounding the facet joints in the lumbar spine, ablating the nerves and destroying their ability to transmit pain signals. RFA is an outpatient procedure using local anesthesia. While the procedure may provide pain relief, in most patients the nerves regenerate.

- **OnabotulinnumtoxinA** (Brand name: Botox). **Botox** injections are typically used for relief of frequent migraine headaches. Botox received approval from the FDA as a treatment for chronic migraines in 2010.

- **Spinal Cord Stimulator.** The most common use of spinal cord stimulators (SCS) is with patients diagnosed with failed back syndrome (see definition under Surgery below). A SCS includes electrodes implanted in the epidural space, an electrical pulse generator implanted in the lower abdominal area of gluteal region, connecting wires to the generator, and a generator remote control.

- **Intrathecal Pump**. An intrathecal pump is an implantable device that delivers pain medication directly to the spinal fluid. Common medications used in pumps include baclofen or morphine. The pumps deliver medications at higher dosages than possible with oral medications.

- **Surgery**. Surgery may be offered for various pain locations such as back, neck, knee, shoulder, or ankle. Surgery for chronic pain is usually considered only after conservative treatments have failed or if seen as medically necessary. Individuals who have undergone one or more unsuccessful back surgeries may receive the diagnosis or label of “failed back syndrome” or “failed back surgery syndrome.” Causes for failure of surgery vary but the results can lead to frustration and distrust of medical providers, increased depression, and increased perceptions of disability (Onesti, 2004).

Non-Invasive Medical Treatment Options for Chronic Pain

- **Physical Therapy:** Reduction in bodily movement that can be related **to fear of pain or re-injury** is common in chronic pain and often leads to physical deconditioning and, subsequently, increased pain. Physical therapy is an integral part of chronic pain interventions as it helps restore physical functioning and reengagement in rewarding life activities. Physical therapy involves a range of activities including stretching exercises, strengthening exercises, and use of graded exercise techniques such as therapeutic pools or stationary bikes, in addition to a range of palliative therapies such as spinal manipulation and ultrasound, among others

- **Cold/Heat:** Application of cold and heat are often used for the management of chronic pain. Cold and heat may decrease sensitivity to pain and provide competing sensory central nervous system input that can reduce pain sensations

- **Transcutaneous Electrical Nerve Stimulation (TENS):** TENS units stimulate nerves by introducing a mild electrical current. The electric current is not strong enough to cause muscle contraction but, instead, is thought to interfere with the transmission of pain signals to the brain. Electrodes are placed on the ski

Complementary and Alternative Therapies (CAM)

- **Chiropractics**: These interventions primarily focus on spinal adjustment or adjustment to other joint areas. Spinal or other joint manipulations involve a dynamic thrust that causes an audible release and attempts to increase range of motion. Chiropractic care may also involve soft tissue therapy, strength training, dry needling, functional electrical stimulation, traction, or nutritional recommendations.

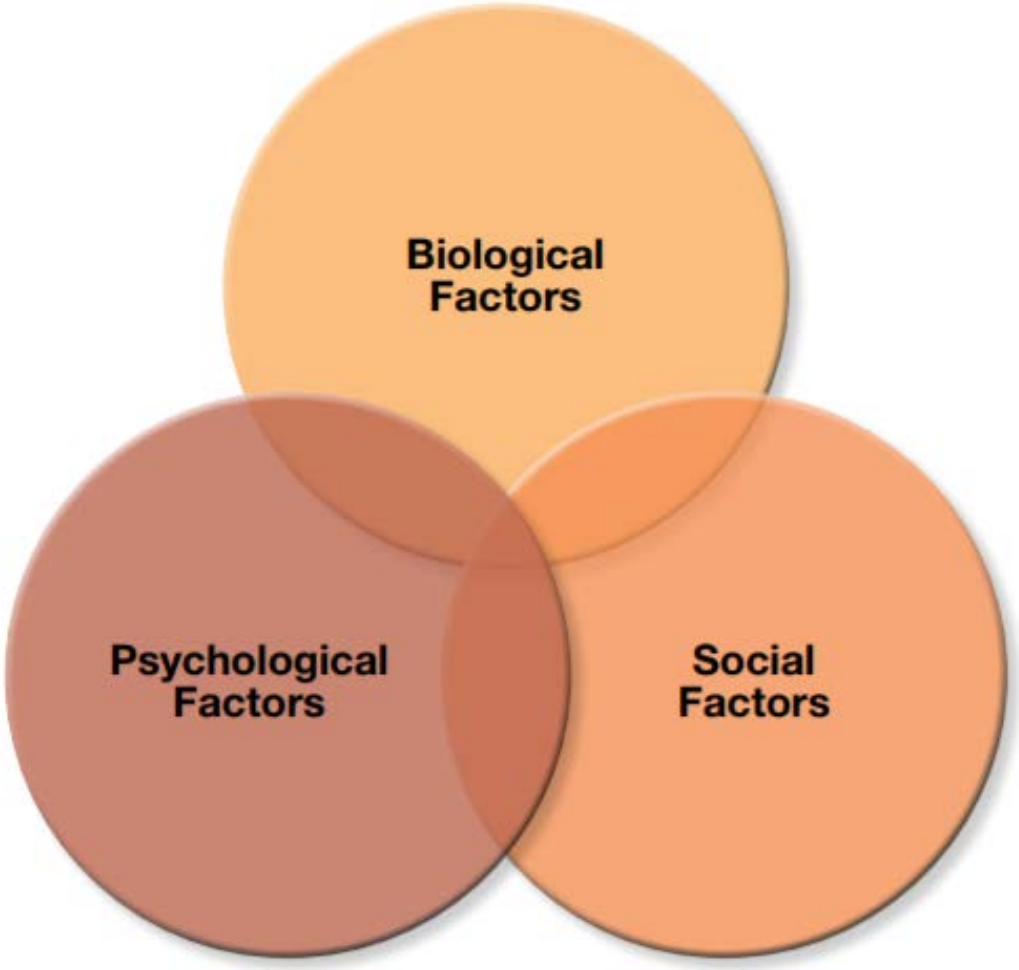
- **Acupuncture**. Acupuncture involves the insertion of needles into acupuncture points in the skin in an effort to relieve pain. Acupuncture produces physiologic effects that are relevant to analgesia

- **Yoga/Tai Chi**. Yoga and Tai Chi may provide a source of graded physical exercise combined with relaxation to improve chronic pain.

- **Biofeedback.** Biofeedback involves gaining greater awareness of physiological functions or processes such as muscle tone, skin conduction, heart rate, or brainwaves. Awareness of different physiological processes is gained through use of a variety of types of monitoring devices specific to the process being monitored, such as an electromyography (EMG) to measure muscle activity or electrodermograph to register skin conductance or resistance. Information on a specific process is gathered, amplified, and displayed (fed back) to the patient who then uses the visual or auditory feedback to gain control over the targeted behavior. Biofeedback has been used to treat a variety of chronic pain disorders but is most often used in the management of headaches.

- **Relaxation Training**. Relaxation training, which may be done in the context of biofeedback, focuses on identifying tension within the body and applying systematic techniques for decreasing that tension. The most common techniques, which will be described in detail later in this manual, include diaphragmatic (or deep) breathing, progressive muscle relaxation, and visualization.

The Biopsychosocial Model



Selected Psychological Approaches

- **Operant Behavioral Therapy:** significant development in the understanding and treatment of chronic pain by **introducing the concept of pain behaviors.** These refer to **forms of communication that are observable expressions of pain and suffering such as moaning, clenching, grimacing, sighing, or limping**. The model suggests that reinforcement of such behaviors, often by those in one's social environment, could lead to maintenance of subjective reports of pain and increased self-perceptions of disability.

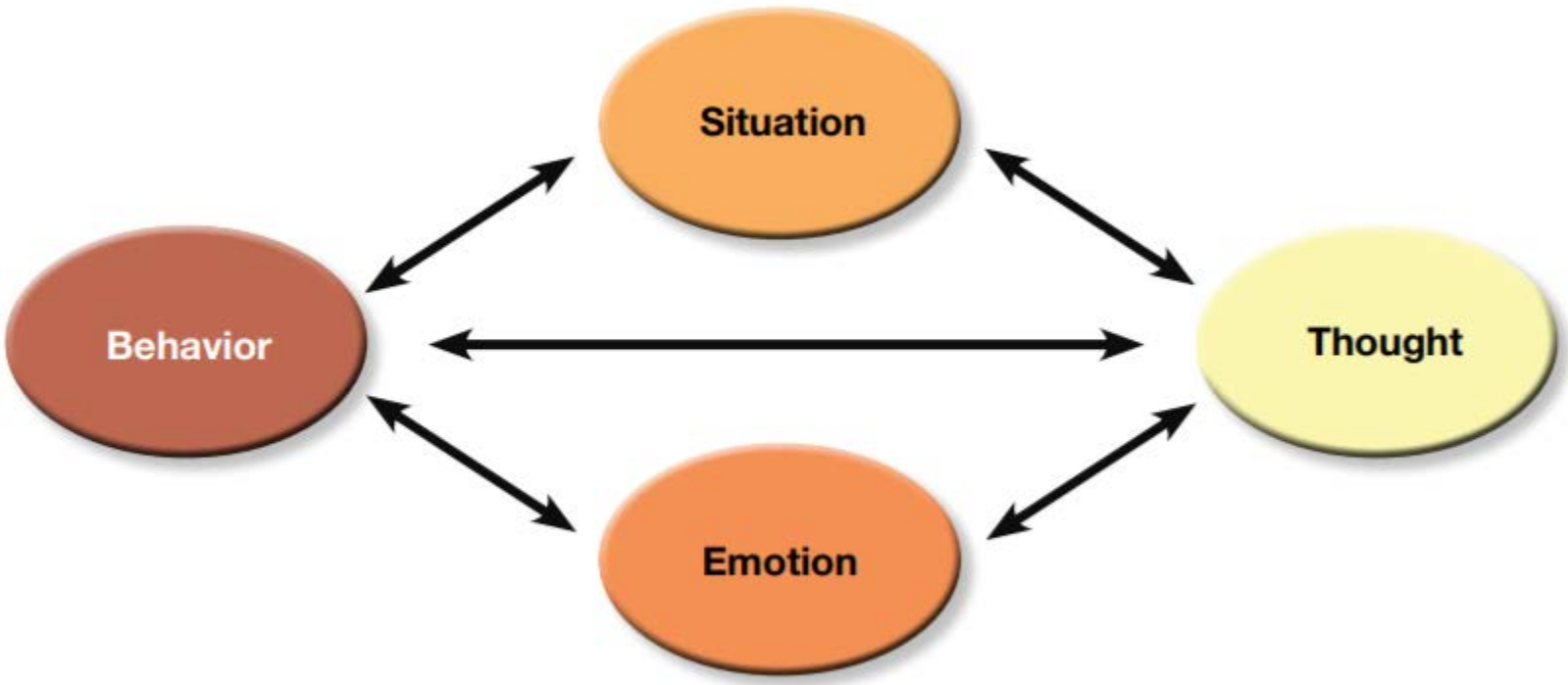
- **Acceptance and Commitment Therapy (ACT).** Acceptance and Commitment Therapy, (ACT: Hayes et al., 1999) is an **acceptance- and mindfulness-based intervention** that teaches patients to observe and accept thoughts and feelings **without judgment and without trying to change them.** It focuses on identifying core values and behaving in accordance with those values. As applied to chronic pain, ACT emphasizes that while the physical sensation may be painful, the patient's struggle with pain is what causes suffering and emotional distress (Dahl & Lundgren, 2006). The aim of therapy, therefore, is to develop greater psychological flexibility in the presence of thoughts, feelings, and behaviors associated with pain.

- **Cognitive Behavioral Therapy (CBT):** CBT helps individuals resolve their problems concerning maladaptive emotions, behaviors, and cognitions through a goal-oriented, systematic process. While it was originally used for treatment of those with depression and anxiety disorders, it has been used with a variety of other conditions from insomnia to substance abuse.

- **Hypnotherapy/Guided Imagery:** utilizes suggestive statements made by a therapist to alter the patient's attention and focus away from pain. Deep breathing is often used as a behavioral cue in the effort to alter the subjective experience of pain

- **Mindfulness**: approach combining elements of relaxation and hypnotherapy, which seeks to increase focused attention and facilitate relaxation. Based in Theravada Buddhism, it seeks to increase intentional self regulation to what is **occurring in the present without attaching negative associations**. As applied to pain management, a primary goal is to separate the pain sensation from unhelpful thoughts.

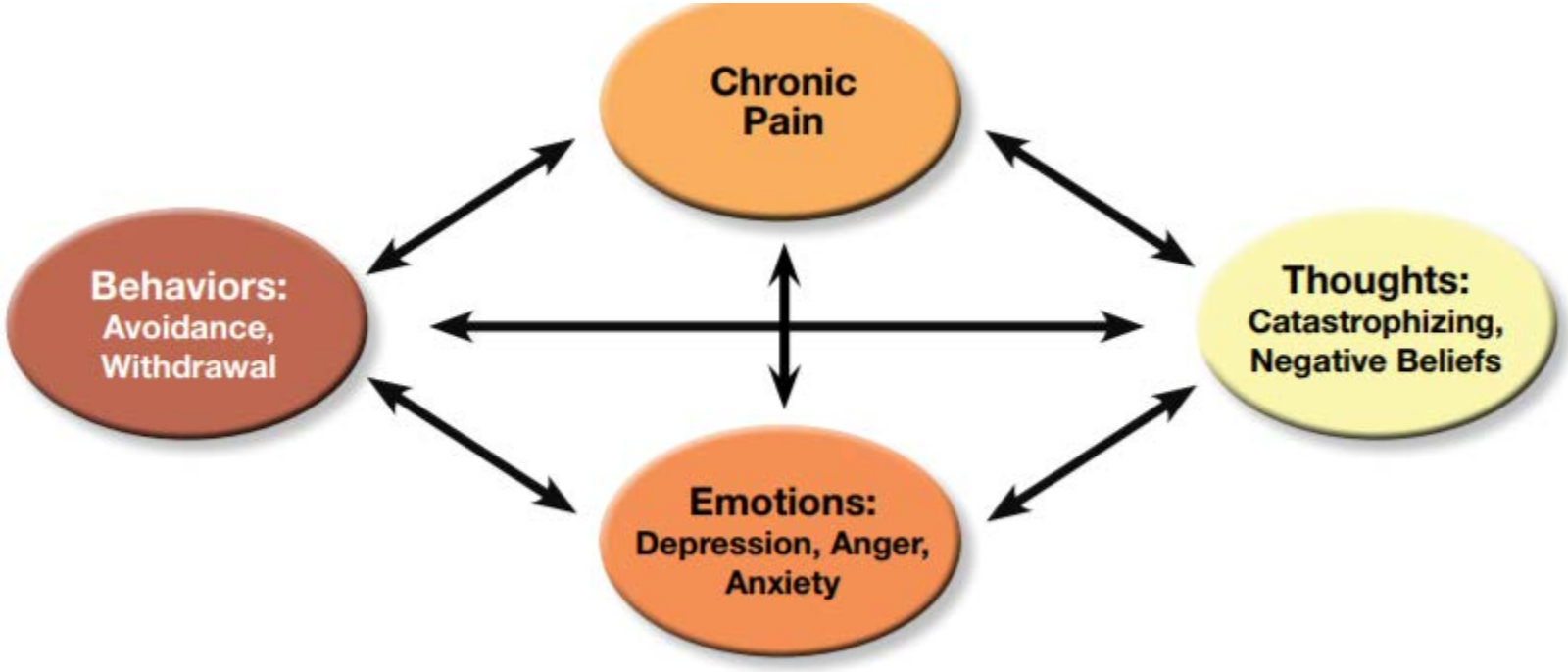
Cognitive Behavioral Model



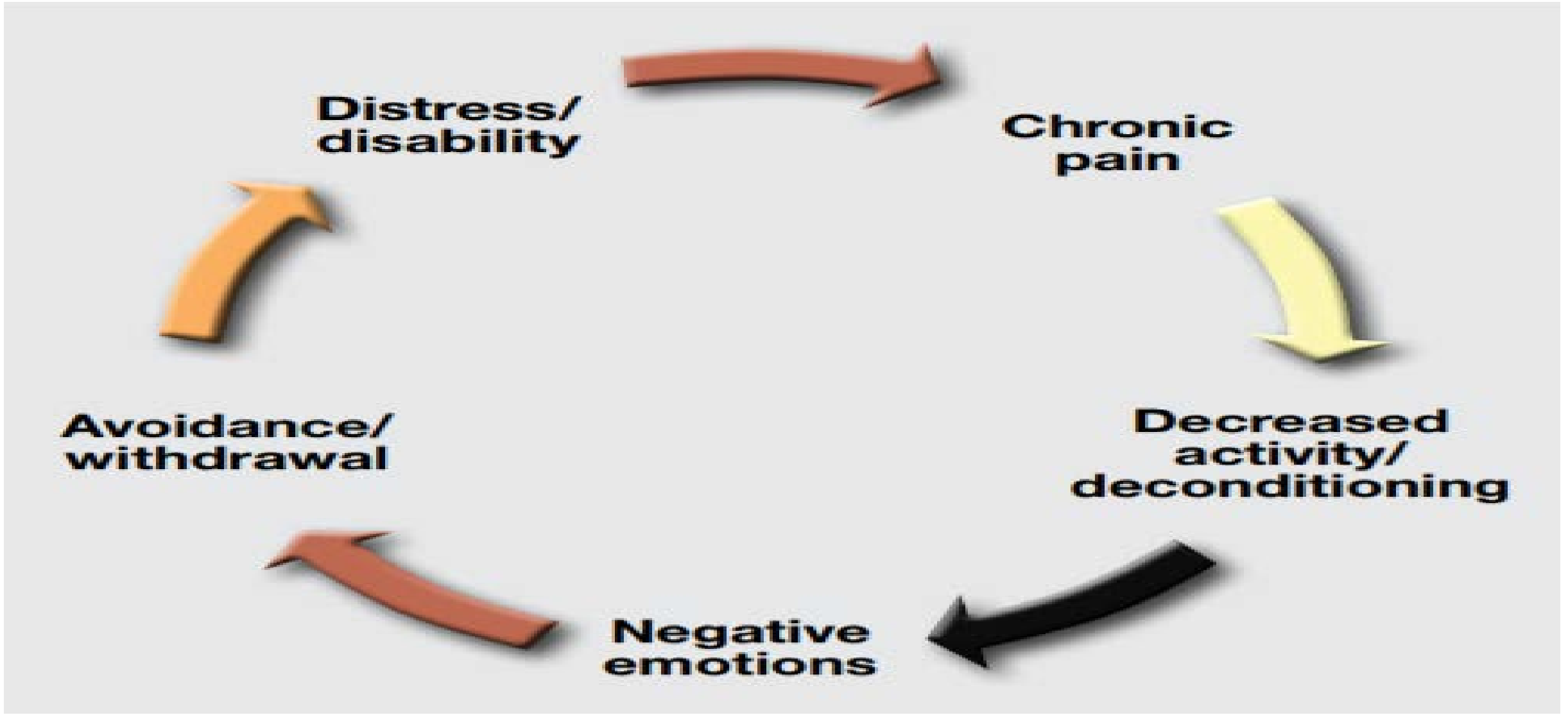
CBT-Chronic **P**ain Objectives

- Reducing the negative impact if pain on daily life.
- Improving physical and emotional functioning
- Increasing effective coping skills for managing pain
- Reducing pain intensity

CBT-Chronic Pain Model



Chronic Pain Cycle



Psychological Factors Pain Cognitions

Negative cognitions and beliefs about pain can lead to maladaptive coping, exacerbation of pain, increased suffering, and greater disability.

- **Catastrophizing:** Catastrophic thoughts or assuming the worst are ***among the most problematic of thought patterns associated with pain***, contributing to increased pain intensity, distress, and failure to utilize adaptive coping techniques. Examples such as "my pain will never stop" or "nothing can be done to improve my pain," may interfere with treatment. Positively, however, catastrophizing appears to respond to behavioral and cognitive behavioral interventions (Hansen, Daykin, & Lamb, 2010; Turner, Mancl, & Aaron, 2006) and may be among the most sensitive indicators of treatment outcomes.

- **Hurt versus Harm:** When **pain is interpreted as evidence of further damage to tissue** rather than an ongoing stable problem that may improve, individuals with chronic pain will report higher pain intensity regardless of whether damage is occurring (Smith, Gracely, & Safer, 1998). This belief, one of the most important among those with chronic pain, can also lead to decreased activity or inactivity.

- **Negative Affect:** The relationship between **pain and negative affect is complex and bidirectional** as individuals with chronic pain are more likely to experience depressive and anxiety disorders (Bair et al., 2013; Kroenke et al., 2011). States of negative emotion can **increase the reported intensity of pain**. Thus combining negative affect with pain (or vice versa) operates much like turning up a volume knob or adding additional traffic on a street.

- **Answer-Seeking: Failing to accept the offered cause of pain or being unwilling to accept that a source of pain** cannot be determined can interfere with effective management. Believing that one's pain is a "mystery" can lead to increased distress and pain intensity and can also be associated with repeated seeking of further medical tests or pursuing invasive interventions (Williams & Thorn, 1989).

- **Pain Self-efficacy:** Pain self-efficacy is another important, more adaptive, belief about pain. It involves a person achieving a **level of confidence that some degree of control can be exerted over their pain.** Improvements in pain self-efficacy tend to track with improvements in a variety of important pain outcomes (Turner, Mancl, & Aaron, 2006; Weitlauf, Cervone, Smith, & Wright, 2001).

Behavioral Factors: Active and **Passive** Coping

- A high degree of variability exists in the manner in which patients behaviorally cope with chronic pain. A person can consider coping on a continuum from active to **passive forms of coping.**

- **Guarding:** Guarding is defined as any of a set of protective behaviors such as limping, bracing, or otherwise protecting a part of the body. Guarding, similar to other pain behaviors, continues after healing has occurred and reinforces self-perceptions of disability (Prkachin, 2007). Guarding may lead to secondary problems with other parts of the body where compensation has affected alignment.

- **Resting/Underactivity:** Over-reliance on resting as a coping strategy can lead to deconditioning of muscles and general atrophy. Alternating rest periods with activity, also known as pacing, is a healthy way to incorporate rest. A brief explanation is included in the section below, and pacing will be discussed further in session four.

Behavioral Factors: **Active** and Passive Coping

- **Exercise.** Appropriate exercise and stretching can have numerous benefits for individuals with chronic pain. It can reverse the effects of deconditioning, improve strength, reduce risks associated with obesity, and decrease self-perceptions of disability. Exercise can also lead to increased stamina and increased engagement with rewarding or pleasurable activities.

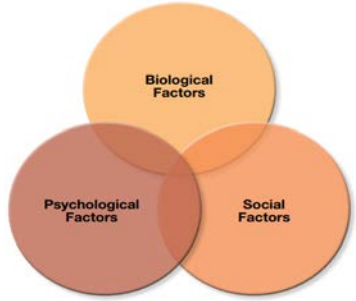
- **Over-activity:** For some individuals, over-activity can be as problematic as avoidance of activity (Andrews, Strong, & Meredith, 2012). Individuals who routinely completely ignore pain to conduct physically stressful activities such as mowing the lawn or painting a house all at one time can pay a steep price. The overactivity may lead to inflammation of pain and result in being unable to function for the remainder of a day or longer; therefore, pacing activities is recommended.

Behavioral Factors: "Other" Coping

- **Pacing:** engaging in an appropriate level of physical activity without significantly exacerbating pain (Gill & Brown, 2009). By using calculated increases in activity, pacing can lead to greater endurance and a reduced frequency of intensely painful episodes.

- **Relaxation:** techniques lead to decreased perceptions of pain (Henschke et al., 2010) and can contribute to feelings of self-efficacy to manage pain (Laevsky, Pabst, Barrett, & Stanos, 2011; Persson, Veenhuizen, Zachrison, & Gard, 2008).

Social Factors:

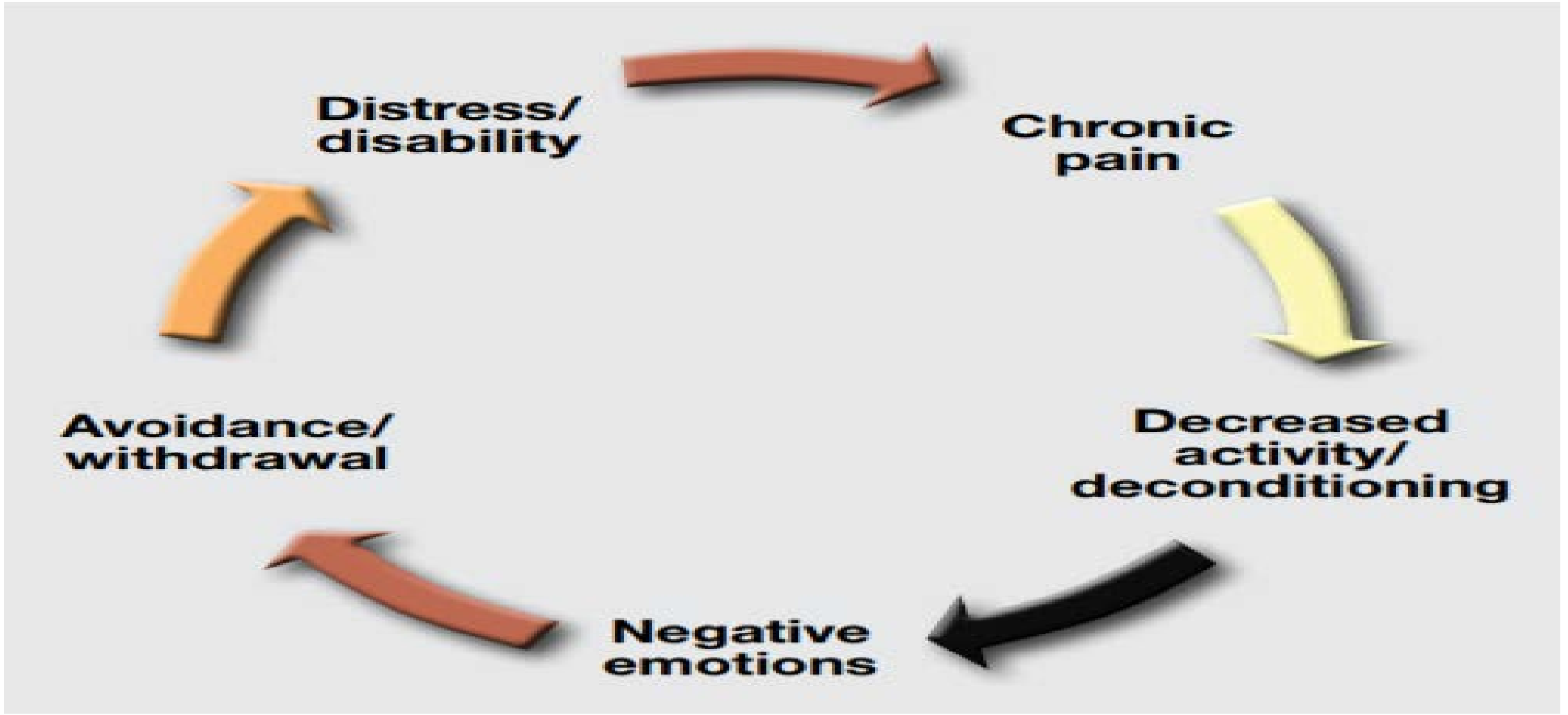


- **Solicitous Significant Other**: A solicitous significant other is **highly responsive** to an individual's pain or to expressions of behavior indicative of pain (McCracken, 2005). The solicitous social interaction results in increased reports of pain as contrasted with social interactions that focus the individual's attention away from pain and onto different topics or activities. This may lead to increased pain or increased reports of disability for the person with pain (Fillingim, Doleys, Edwards & Lowery, 2003).

  If "solicitous" is at one end of the social continuum then "punishing" is at the other.

- **Punishing** responses involve either **angry or ignoring responses**, each aimed at limiting expression of pain (McCracken, 2005). Some potential consequences of punishing responses include dramatic (loud) expressions of one's pain experience in an effort to be "heard" or, alternately, inability to express emotions about pain can lead to stoicism and resignation.

Chronic Pain Cycle



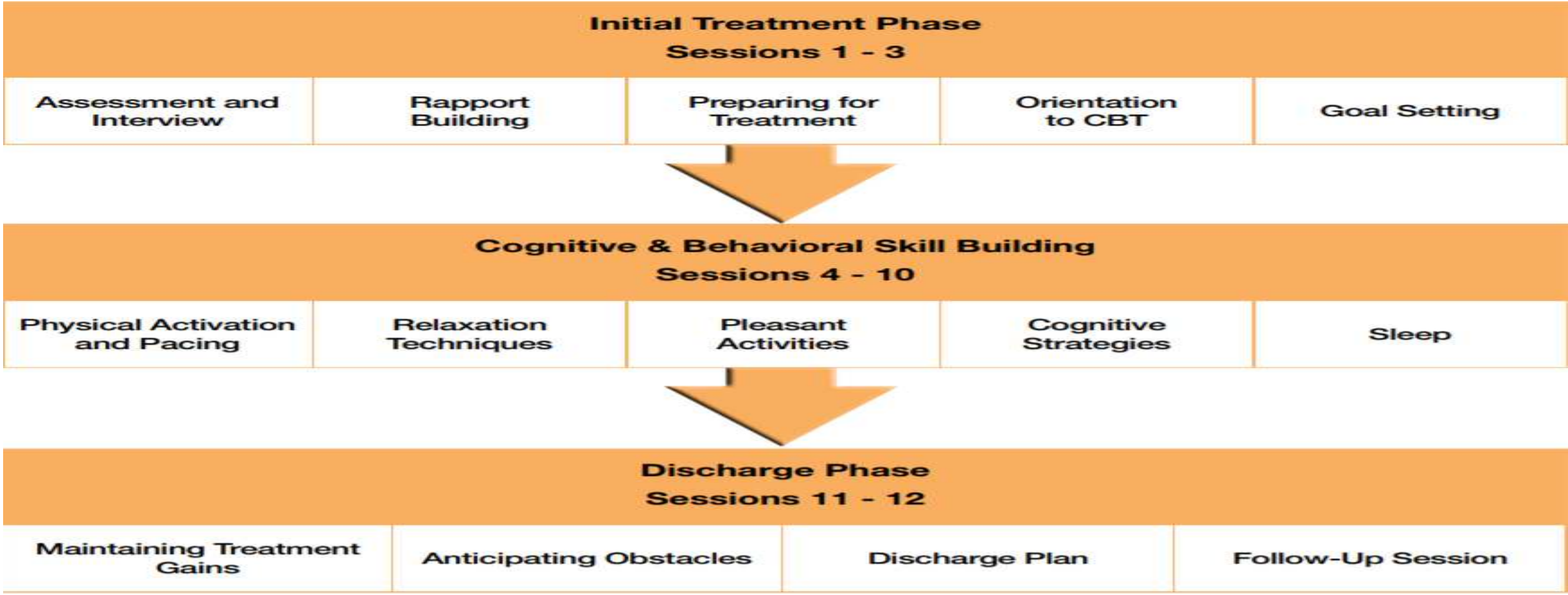
Cognitive Behavioral Therapy for Chronic Pain (CBT-CP)

- Evidenced Based
- Proven across a variety mental and behavioral conditions
- Improves functioning and quality of life
- Strong therapeutic relationship
- Encourages clients to adopt an active, problem-solving approach to cope with the many challenges associated with chronic pain

CBT-CP - Components

- Exercise
- Pacing
- Relaxation Training
- Cognitive Restructuring
- Behavioral Activation

Structure of Treatment



Measurement Based Care

Subjective Units of Disturbance (SUDS)

10 = Feels unbearably bad, beside yourself, out of control as in a nervous breakdown, overwhelmed, at the end of your rope. You may feel so upset that you don't want to talk because you can't imagine how anyone could possibly understand your agitation.

9 = Feeling desperate. What most people call a 10 is actually a 9. Feeling extremely freaked out to the point that it almost feels unbearable and you are getting scared of what you might do. Feeling very, very bad, losing control of your emotions.

8 = Freaking out. The beginning of alienation.

7 = Starting to freak out, on the edge of some definitely bad feelings. You can maintain control with difficulty.

6 = Feeling bad to the point that you begin to think something ought to be done about the way you feel.

5 = Moderately upset, uncomfortable. Unpleasant feelings are still manageable with some effort.

4 = Somewhat upset to the point that you cannot easily ignore an unpleasant thought. You can handle it OK but don't feel good.

3 = Mildly upset. Worried, bothered to the point that you notice it.

2 = A little bit upset, but not noticeable unless you took care to pay attention to your feelings and then realize, "yes" there is something bothering me.

1 = No acute distress and feeling basically good. If you took special effort you might feel something unpleasant but not much.

0 = Peace, serenity, total relief. No more bad feelings of any kind about any particular issue.

Measurement Based Care

Faces Pain Scale – Revised

From "The Faces Pain Scale – Revised. Toward a Common Metric in Pediatric Pain Measurement," by C.L. Hicks, C.L. von Baeyer, P.A. Spafford, I. van Korlaar, & B. Goodenough, 2001, Pain, 93, 173-183. Reprinted with permission of the International Association for the Study of Pain.

Note: This is a smaller sample of the actual scale. For further instructions on the correct use of the scale and more information, please go to www.painsourcebook.ca

Numeric Rating Scale

Please rate your pain from 0 to 10 with 0 indicating no pain and 10 representing the worst possible pain.

_____

Adapted from Jacox, A., Carr, D.B., Payne, R., et al. (March 1994). Management of Cancer Pain. Clinical Practice Guideline No. 9. AHCPR Publication No. 94-0592. Rockville, MD: Agency for Health Care Policy and Research, U.S. Department of Health and Human Services.

Verbal Descriptor Scale

Ask the patient: Please describe your pain from "no pain" to "mild", "moderate", "severe", or "pain as bad as it could be." _____

_____

_____

_____

Adapted from Jacox, A., Carr, D.B., Payne, R., et al. (March 1994). Management of Cancer Pain. Clinical Practice Guideline No. 9. AHCPR Publication No. 94-0592. Rockville, MD: Agency for Health Care Policy and Research, U.S. Department of Health and Human Services.

https://consultgeri.org/try-this/general-assessment/issue-7.pdf

TALKING TIPS: *Effects of pain and what you can do!*

BELIEFS – You may begin to believe that it is better to try and restrict your movement.
CBT-CP and You – You will learn about your body and make some changes that will show moving is actually helpful.

ACTIVITY – Cutting back on activity can make your muscles stiff and cause you to lose strength.
CBT-CP and You – We will focus on slowly introducing activities to get you back to things that you enjoy and want to do.

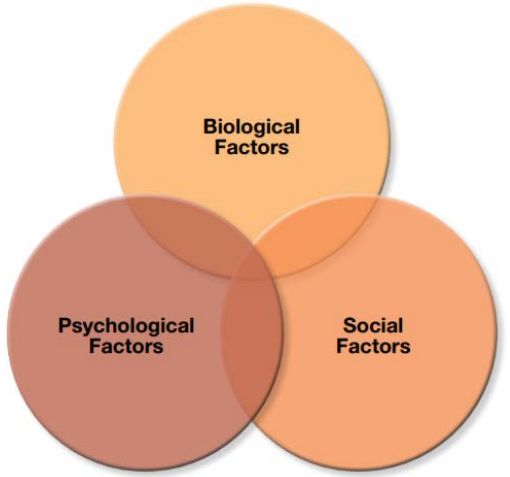
PHYSICAL – Not moving may have led you to gain weight or to feel fatigued and tired much of the time.
CBT-CP and You – Starting to move and walk will improve your physique and give you more energy.

MOOD – The effects of chronic pain may make you feel down, frustrated, anxious, angry, and more.
CBT-CP and You – Beginning to engage in pleasant activities and resuming regular activities will help improve your mood and self-esteem.

SOCIAL LIFE – You may have withdrawn from others and feel irritable or guilty from your pain and its effects.
CBT-CP and You – We will focus on interacting more with others and having positive social experiences.

THOUGHTS – You may spend a lot of time worrying about your pain or thinking negative thoughts.
CBT-CP and You – We will help you learn how to change your thinking so that you can manage your outlook.

Sleep Hygiene



- Environment: screens, content, tones, conversations
- Volume: minimal noise
- Appropriate light (dark at night, bright in the morning)
- Temperature (not too hot) are typically controllable factors that should be adjusted
- Clock-Watching
- Remember to get out of bed if you are unable to sleep
- Stress and Worries: may surface once the house is quiet and dark but this is not a good time to problem-solve
- Relaxation • Use relaxation techniques

Resources

- ***Alternatives to Drugs for Treating Pain (NYT)*** https://www.nytimes.com/2017/09/11/well/alternatives-to-drugs-for-treating-pain.html

- https://www.aap.org/en-us/about-the-aap/Committees-Councils-Sections/substance-use/Pages/PCSS-O.aspx

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Thank You!

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Questions & Comments

Thank you!