Scheduled Break

Challenges in chronic pain management

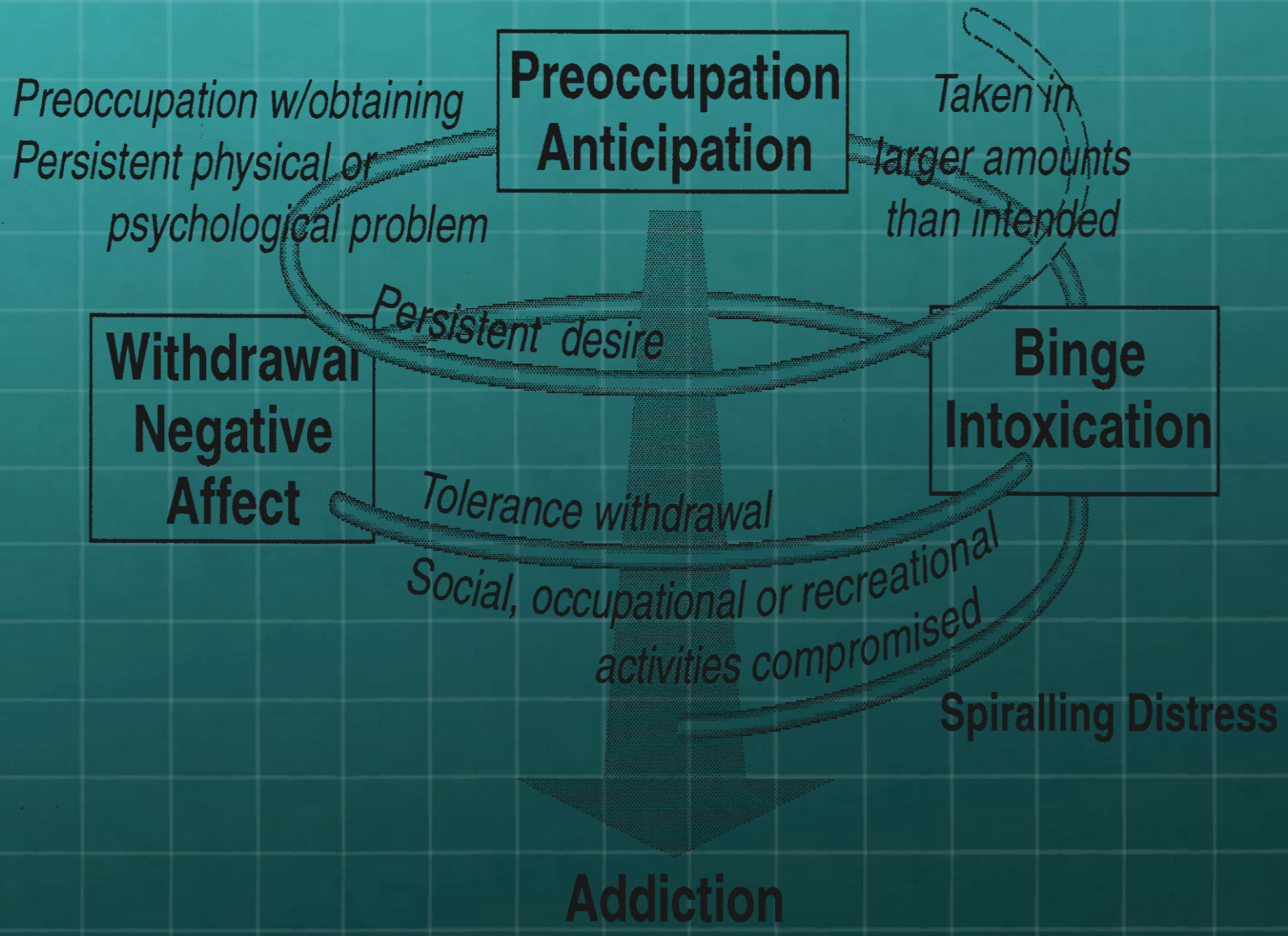
- Fatigue
- Midday Energy Crash
- Insomnia
- Lack of Enough Sleep
- Abdominal fat
- Weight Gain
- Body Aches
- Acute pain
- Foggy Headed
- Short Term
- Memory Loss

- Anxiety
- Depression
- Hopelessness
- Constantly Worried
- Feeling Overcommitted
- Apathy
- Flat Affect
- Burn Out
- Compassion Fatigue Syndrome
- Cravings

Challenges in chronic pain management

- Inflammatory Cytokines:
  - Tumor Necrosis Factor alfa 2a
  - Tumor Necrosis Factor beta
  - Interleukin 1-beta, 4, 6 & 10
  - COX – cyclooxygenase cascade
  - MIC- Macrophage Inhibitory Factor (MIF)
- Others:
  - Cortisol
  - Metabolic Syndrome – HTN, Diabetes, High Cholesterol, abdominal fat, insulin resistance, Proinflammatory state
  - Genetics – MTHFR(methyltetrahydrofolate reductase) Vitamin D deficiency

Criteria for Substance Dependence (DSM-IV)



Definition of drug addiction

- Drug addiction is a chronically relapsing disorder that is defined by two major characteristics: a compulsion to take the drug with a narrowing of the behavioral repertoire toward excessive drug intake, and a loss of control in limiting intake (American Psychiatric Association 1994; World Health Organization 1992).
  - Koob GF, Le Moal M. Drug Addiction, Dysregulation of Reward, and Allostasis. Pubs. Elsevier Science Inc. *Neuropsychopharmacology.*2001; 24:97-129.

Definition of drug addiction

- Drug addiction is not a static phenomenon, and as with other bio-behavioral dysregulation, such as compulsive gambling and binge eating, there are different components that constitute a cycle or circle of ever-growing pathology (Baumeister et al. 1994). Derived from social psychology and conceptualized as sources of self-regulation failures, the addiction cycle has been described as having three components: preoccupation-anticipation, binge-intoxication, and withdrawal-negative affect (Koob and Le Moal 1997).

Stress Factor

- A state of stress is associated with various external and internal challenges to the body and brain, usually termed stressors, and the construct of stress may represent the extreme pathological continuum of overactivation of the normal activational (arousal) or emotional systems of the body (Hennessy and Levine 1979). Such arousal-activational mechanisms trigger biological and behavioral strategies of coping and control that mobilize many organismic and central nervous system mechanisms, whose failure leads to illness (McEwen 1998a; Schulkin et al. 1994; Sterling and Eyer 1981).

Homeostasis

- *Homeostasis*, in principle, corresponds to the mechanism that maintain stability within the physiological systems and hold all the parameters of the organisms internal milieu within limits that allow an organism to survive (Bernard 1865; Cannon and Rosenblueth 1933; Sterling and Eyer 1988).

ALLOSTASIS

- involves the whole brain and body instead of simply local feedbacks, is far more complex than homeostasis. All parameters of a given domain (e.g., blood pressure, or in the central nervous system reward function) are controlled by numerous mutually interacting signals. When demands become chronic, the brain-body system tonically adapts at essentially all levels of organization implying wide- spread changes in set points, and entry into a relaxed condition may create an unpleasant state of withdrawal from one's physiological regulation.

ALLOSTASIS

- Such changes in hormones, opioids, transmitters, and so on, provide a physiological basis for the individual to continue to seek a condition of high demand (Sterling and Eyer 1988), and a stabilized new level of activity far from homeostatic equilibrium. However, when chronic arousal, repeated stress and negative affective states impose prolonged regulations far from normality, there is no margin left for responding to additional challenges, no opportunity for relaxation, and no capacity for more responsiveness.

Pseudoaddiction

- Pseudoaddiction is when a patient has not been adequately titrated to the necessary level of opioids to relieve her pain or a drug-seeking behavior that simulates true addiction, which occurs in patients with pain who are receiving inadequate pain medication.
  - Segen's Medical Dictionary. © 2012 Farlex

Substance Abuse Challenges

- Pain management in patients with Substance Abuse Disorders
  - Clinical approach to chronic pain management in substance abusers is complicated due to misunderstood terms by pain and addition specialist
  - Many state medical boards have not considered the use of opioid analgesics in patient with substance use disorders
  - American Pain Society (APS) and American Academy of Pain Medicine (AAPM) issued a joint statement supporting the use of opioid medications if indicated, even in patients with substance abuse.

Substance Abuse Challenges

- The American Society of for Addition Medicine (ASAM) issued the "Four C's" as useful criteria to emphasize the psychological characteristics of Rx medication abuse.
  - Loss of Control over the use of medications
  - Compulsive use of medications
  - Continued use despite harm
  - Cravings for drugs
    - Olsen Y, Alford DP. Chronic Pain Management in Patients With Substance Use Disorders. John Hopkins *Advance Studies in Medicine, March 2006;6(3):111-122.*

Substance Abuse Challenges

- Prevalence of chronic pain in addicted populations
- Under treatment of chronic pain in patients with substance use disorders
  - Patient-level factors
  - Physician-level factors
  - System-level factors

Substance Abuse Challenges

- Treatment considerations for chronic pain in patients with substance use disorders
  - Trust in the patient-physician relationship
  - Goals of treatment and the interdisciplinary team
- Treatment options for chronic pain in patients with substance use disorders
  - Non-pharmacologic therapies
    - Physical therapy with McKenzie Methodology
    - Acupuncture
    - TENS
    - Massage therapy, hydrotherapy, yoga- breathing exercises
    - Cognitive-behavior therapies including spiritual nourishment
  - Pharmacologic therapies

Substance Abuse Challenges

- Monitoring for and response to aberrant drug-taking behavior (instead of drug-seeking)
- Assessing response to therapy
  - Analgesia (pain relief)
  - ADL (psychological functioning)
  - Adverse effects
  - Aberrant drug-taking behavior
- Use of contracts/agreements
- Use of toxicology testing
- Pill count
- Differential Dx of aberrant drug-taking behavior

Substance Abuse Challenges

- Risk factors for aberrant drug-taking behavior:
  - Multiple MVA as the driver
  - Family history of substance abuse
  - History of legal problems
  - Nicotine dependence
  - High opioid doses
  - Fewer side effects from opioids
  - Mental health disorders
  - History of previous or active substance abuse

Substance Abuse Challenges

- Risk factors for aberrant drug-taking behavior:
  - Many medical disorders
  - Younger age
  - Untreated pain
  - Prior history of opioid detoxification
  - History of termination or limited care from multiple physicians/dentists
  - Personal belief of own addiction
  - History of childhood sexual abuse
  - Unwillingness to sign an opioid agreement

Risk Evaluation and Mitigation Strategy (REMS)

- DEA and FDA is moving forward with an enforcement initiative called Risk Evaluation and Mitigation Strategy or REMS. This program was first initiated in the armed forces health care services and now will be rolled out nationally by the federal government. The focus of this enforcement initiative is to ensure that the benefits continue to outweigh the risks of adverse outcomes, i.e., addiction, unintentional overdose and death resulting from physician inappropriate prescribing, abuse, and misuse of extended release/long-acting opioids. REMS will first include: hydromorphone, morphine, oxycodone, oxymorphone, tapentadol, fentanyl, buprenorphine and methadone.

Risk Evaluation and Mitigation Strategy (REMS)

- DEA and FDA are considering adding hydrocodone to the list. This will have a major affect on pain management as it is practiced today. I believe we should have a proactive approach and provide our prescriber education, patient-counseling documents on opioid use, medication guides for our patients and opioid agreements including how to identify potential patients with substance abuse disorders and drug-taking behaviors.

Dr. Carl Jung 1930 lecture

- He stated that it is a tragedy in our part of the world that developmental tasks of the second half of life seem unknown to most people. We lead our lives with the erroneous apprehension that continuing with the tasks of the first half of life is all there is. As a consequence, many of us meet our death as half-developed individuals, exhibiting signs of depression, despair, fear of death, and disgust with ourselves and others, together with feeling that life has been uncompleted or wasted. Jung implies that other cultures might be better aware of the special developmental tasks of the second half of life.

Developmental Theorists – Erik Erikson

- ***Psychosocial moratorium*** **- stage between morality learned by the child and the ethics to be developed by the adult.**
- ***Psychosocial Moratorium is a period of "time out"! It creates the template of transcendence for a child-adolescent to gradually become an adult. This is a critical stage of development. If this stage is not nurtured to full development the Id, ego and superego will never conform. The child will always be an "adult-child".***

Closing Comments

- Play fair.
- Don't hit people.
- Put things back where you found them.
- Clean up your own mess.
- Don't take things that aren't yours.
- Say you're sorry when you hurt somebody.
- WARM COOKIES and COLD MILK are good for you.
- Live a balanced life-learn some, think some. Draw and paint, sing, dance, play and work every day.
- When you go out into the world, watch out for traffic, hold hands and stick together.
- Be aware of wonder.
  - R Fulghum. *All I really need to know I learned in kindergarten*.1988.

Questions ???