Objectives

- Concept analysis
  - Activity: Students Develop defining characteristics for addiction concept using their own experience (slides 4-12)
  - Addiction Concept Framework (slides 13-33)
- Exemplar 1: Alcoholism
  - Case study (slides 34-52)
  - Individual nursing diagnoses (slides 37, 38, 39, 43, 44)
  - Family nursing diagnoses (slide 45)
  - Communication (motivational interviewing; slides 53-60 and 66)
- Exemplar 2: Dual Diagnosis (slides 61-69)
- References (slide 70)
Character for Crisis = Dangerous Opportunity
Concept Analysis Activity: Define Addiction

“A compulsive and maladaptive dependence on a substance (e.g., alcohol, cocaine, opioids, or tobacco) or a behavior (e.g., gambling, interned, pornography). The dependence typically produces adverse psychologic, physical, economic, social, or legal ramifications” (Taber’s Cyclopedic Medical Dictionary, 2005, p. 42).
Concept Analysis Activity:
Defining Characteristics
(AKA Essential Themes, or Critical Attributes)

1. Tolerance and Withdrawal
2. Deception of Self and Others (denial)
3. Loss of Willpower and Relapse Process
Concept Analysis Activity: Tolerance and Withdrawal

1. *Due to tolerance, one is always wanting more*

2. *If sufficient quantities are not obtained, then withdrawal symptoms occur:*
   - **Stress Reaction Symptoms**: Mediated by autonomic nervous system; not well controlled by conscious mind. Range from mild uneasiness and irritability to extreme agitation, rapid pulse, tremors, panic.
   - **Rebound Symptoms**: The exact opposite of the addictive behavior.
Concept Analysis Activity: Deception of the Self and Others (denial)

- ‘Mind Tricks’: all of which have a single purpose: to keep the addictive behavior going. “Just one last cigarette…” “One more fix…”
- Denial (the basis for all defense mechanisms): rationalization, displacement, and every other defense mechanism identified by psychoanalysts plus an endless variety of others are used to maintain the addiction
- The attention is completely preoccupied by the addiction
- Good people will do bad things in pursuit of addiction
- Real love is not possible BUT the addict may use the language of love to obtain assistance in maintaining the addiction
Concept Analysis Activity:
Loss of Willpower and Relapse I

**ADDITION ATTACKS THE WILL:**

- *Addiction splits the will in two:* one part of the will desires freedom (from the addiction) and the other desires only to continue the addictive behavior.
- *The will of addiction is stronger in true addiction*
- Therefore, resolutions fail, self-esteem plummets and the addiction has a stronger foothold than ever.
The inability to defeat addiction with willpower defines the difference between slavery to addiction and freedom to sincerely care about something.

**SIMPLE TEST FOR ADDICTION** *(according to addictionologist Gerald May)*: If you say “I can handle it” or “I can do without it” *then go without it!* Can you? If so, then you are not addicted *by definition*. If you cannot stop, then no amount of rationalization will change the fact: you are addicted!

*...Did you get withdrawal symptoms while without it?*
Concept Analysis Activity:
Loss of Willpower and Relapse III

*Highly controversial but this we know for sure:*

Maybe Diagram A:

Maybe Diagram B:

But never Diagram C:
In successful recovery the addict sees craving as the beginning of relapse and is thus able to intervene with *planned, positive coping strategies BEFORE* using the addictive substance or behavior (May, 1988).

According to The Betty Ford Institute Consensus Panel (2007), *this is an ongoing struggle*

- *Early sobriety* = one month to one year
- *Sustained sobriety* = one year to five years
- *Stable sobriety* = sobriety > five years
Concept Analysis Activity:
Loss of Willpower and Relapse V

*Initial freedom from addiction leads to joy, then pride…*

- But impulses *(cravings)* re-occur. *These recurrences are in fact relapses*—losses of freedom.
- “A drink would sure taste good right now…”
- “If I weren’t straight this would be the time to get high…”
- “I wonder what it would be like?”
- “I can handle it!” leads to “only on weekends”, “no hard stuff…”
Selected Statistics

- **30% of Americans** have some sort of alcohol use disorder; alcohol alone accounts for 25% of national health care budget (USDHSS, 2008)

- **Very high prevalence among sexual abuse survivors**

- Criminal justice populations: 25% of parolees are illicit drug users compared to 7% (USDHSS, 2008)

- **Among youth, past month use of any illicit drug was 8.1% when parents help with homework and 16.0% percent when parents seldom or never help.** Similar data for tobacco and binge drinking... (USDHSS, 2008)

- **ANA: Up to 20% of nurses** have substance abuse issues
Addiction Models

- Psychosocial behavior models
- Neurobiological Models (disease model)
- Neuroadaptation Model
PsychSocial Models

Examples:

- Donovan’s multifactoral model of impairment (Donovan, 1986)
PsychSocial Models: **Risk Factors**

- Both Rogers’ science and Donovan’s multifactorial model are focused on the **whole person** rather than specific parts or factors.

- Impairment occurs through the interaction of characteristics and **multiple risk factors** (Naegle, 1988).

- Risk factors include heredity, family history, gender, psychological deficits, antisocial personality, ego weakness, and sociocultural factors.

- Bry (1983) theorized that more risk factors increase the chance of substance-related disorder. **Risk factors may occur naturally or as a result of choices.**
PsychSocial Models: **Mediating Factors**

- **Mediating factors can be changed or moderated** to either maintain impairment or to protect a person from becoming impaired.

- **Mediating factors include the environment, family dynamics, personality, and interactional patterns.**

Once a pattern of substance impairment is understood, the focus can be on changing the pattern toward health and healing. [THINK: Motivational Interviewing]
Spectrum of Psychoactive Substance Use

**Casual/Non-problematic Use**
- recreational, casual or other use that has negligible health or social effects

**Chronic Dependence**
- use that has become habitual and compulsive despite negative health and social effects

**Beneficial Use**
- use that has positive health, spiritual or social impact:
- e.g. medical pharmaceuticals; coffee/tea to increase alertness; moderate consumption of red wine; sacramental use of ayahuasca or peyote

**Problematic Use**
- use that begins to have negative consequences for individual, friends/family, or society
- e.g. impaired driving; binge consumption; harmful routes of administration
Neurobiological Model of Addiction

- Certain parts of the brain govern specific functions
  - **The Reward Center** (ventral tegmental area, the nucleus accumbens and the caudate nucleus)
- Drugs of abuse imitate or block actions of nerve transmitters
  - Opiates activate opiate receptors
  - Alcohol activates GABA and blocks glutamate receptors
  - Stimulants block reuptake of dopamine and other neurotransmitters, prolonging their action on receptors
Neurobiological Model: Neurons

- **Neurons**
  - There are many kinds of cells in the brain, but the most significant are the nerve cells or *neurons*.
  - *Neurons both initiate and respond to a wide variety of electrical, magnetic, chemical and vibratory stimuli.*

- **Functional systems of neurons** are made up of cells that work together on particular tasks. Some work together closely such as:
  - *Cells in the frontal lobe* that think a single abstract thought.
  - *Cells in the parietal lobe* that may register a simple touch.
  - *Cells in the hypothalamus* that regulate body temperature.
Neurobiological Model: Neurons

- **But**, most functional systems of neurons involve collaboration of cells that are widely separated.
- For example: To hear a song that reminds you of a time in the past neurons must cooperate between the inner ear, parietal lobe, frontal lobe, temporal lobe and others.
- **To accomplish this**, neurons interact with synapses, neurotransmitters and neuroreceptors.
- **Neurotransmitters** may be excitatory or inhibitory, and the same neurotransmitter may excite or inhibit, depending on the receptor.
Neurobiological Model of Addiction

Synapses, Neurotransmitters and Neuroreceptors

- Neurochemical messages are sent through synapses.
- Communication takes place when the axon of one cell releases a neurotransmitter into the synaptic cleft and is received chemically by neuroreceptors of the next cell.
- Neuroreceptors are powerfully sensitive to other chemicals such as hormones, caffeine, nicotine, narcotics.
One neuron

dendrite
soma
terminal
axon
Two Neurons
Neurobiology of Cocaine Addiction
Neurobiology of Cocaine Addiction
Complexity of the Brain

- One billion to 1 trillion neurons are in the brain.
- All neurons are formed by the time of birth, developing at a rate of at least 150 per second during pregnancy.
- There are approximately 500 TRILLION synapses:
  - The average neuron has 20,000 synapses.
  - Some single neurons have as many as 200,000 synapses.
- If a supercomputer could count a thousand synapses per second it would take almost 15 thousand years.
Complexity of the Brain

- **AND**, there are about 30 different neurotransmitters identified so far
- **AND**, a neuron may be involved in many different functions, responding to many different stimuli simultaneously
- **All thoughts, feelings, human experience, behavior, sensations and memories are mediated by neurotransmitters**
- A simple knee jerk reflex may involve only a few 100K synapses and one or two neurotransmitters. Complex activities require millions or billions of synapses and intricate neurotransmitter interactions
Neuroadaptation Model

FEEDBACK

- Stimulatory, inhibitory, facilitative
  - It’s like a conversation between cells… “Speak up”, “Whoa, slow down”, or, “Okay, please go on…”

HABITUATION

- Neurons that receive repetitive stimuli over short period will inhibit their own receptors to restrict incoming stimuli
- Habituation is what makes us unaware of background noise such as ocean waves (Is habituation impaired in ADD?)
- If repetitive stimuli persist then neurons will actually destroy their own neuroreceptors and sever synaptic connections
Neuroadaptation Model

**ADAPTATION**

- Feedback and habituation keep new stimuli from too strongly affecting normal equilibrium. When neither work a new equilibrium is called adaptation.

*Example: Insomnia from worry…*

- *Eventually, through feedback or habituation* the stimulation of worry will stop and sleep will come. *Comparatively, a sedative overwhelms the stimulus of worry.*

- *The neuron will release neurotransmitters to counteract the sedative,* so, if you stop the sedative after the worry is alleviated by circumstance there will be restlessness
Neuroadaptation Example: Insomnia

- After one or two nights the neurons readjust, but if you continue to take the sedatives you will be addicted...

- Why? Neurons habituate to become less sensitive to the sedative. This is called TOLERANCE.

- Due to tolerance you need INCREASING doses to overwhelm the neurotransmitters so you can sleep

- The receptor neuron keeps adapting to increasing doses, but the transmitter neuron (WORRY) keeps firing

So, there is a rebound effect if you suddenly stop the sedative
Non-Substance Addictions

- All the concepts of psychosocial, neurobiological, and neuroadaptation apply to non-substance addictions

Money, power, relationships, sex, worry, computer games, television, work, exercise, sports…

ADDICTIVE THOUGHT PATTERNS

- Different systems of cells, but the patterns of feedback and habituation work the same
ADDICTION EXEMPLAR I

Substance Abuse: Alcohol Addiction

Model Case: Jim
Alcohol Addiction Model Case:

Jim (Does Jim have insight???)

Jim is a 45 y/o Caucasian male, married to Darla with two children: 16 y/o Ryan and 9 y/o Jenny. The interview with Jim stemmed from a family therapy meeting to plan Ryan’s care—Ryan is currently in a substance abuse treatment program. Jim’s interview began with the CAGE Assessment:

CAGE Assessment

- Have you ever felt you should Cut down on your drinking or drug use?
- Have people Annoyed you by criticizing your drinking or drug use?
- Have you felt bad or Guilty about your drinking or drug use?
- Have you Ever had a drink first thing in the morning to steady your nerves or get rid of a hangover or get the day started?
Alcohol Addiction Model Case:

Jim

- Jim is charming, funny and talkative. He affirmatively acknowledges all four CAGE questions.
- Jim further acknowledges more than two decades of alcoholism and substance abuse. He says he has tried Narcotics Anonymous and Alcoholics Anonymous meetings, “but they didn’t help much.” He says that after such meetings he and other addicts go out to drink and use drugs together.
- Jim says tearfully that he has tried family therapy as well, “because of me our whole family is screwed up.”
Individual Nursing Diagnosis #1

**Ineffective Coping**

R/T: Inability to manage stressors without...

AEB: Acknowledged addiction, desires assistance (Carpenito, p. 196)
Individual Nursing Diagnoses #2

Defensive Coping

R/T numerous failures (Carpenito, p. 577)

AEB: Long-standing pattern of ineffective coping
Individual Nursing Diagnoses #3

Chronic Low Self-Esteem

R/T: History of numerous failures

AEB: Self-negating verbalization, rationalizes personal failures
Alcohol Addiction Model Case: Jim

- Jim has been arrested and incarcerated numerous times for reasons related to drug and alcohol abuse.
- While in jail, Jim thinks about getting high, he drinks “pruno” with other inmates and he plans ways to manipulate his wife Darla back into taking care of him on release. He plans to be kind and generous with her at first, and he thinks he “might even have to get a job for a while.”
- In fact, (knowing rules of confidentiality) Jim admitted that COMING IN FOR THIS INTERVIEW WAS PART OF MANIPULATING DARLA...!
Alcohol Addiction Model Case:

Jim

- “Alcoholism runs in the family,” Jim says. And, like others in his family, he has gone through alcohol withdrawal several times.
- “Withdrawal sucks” he says. “It can last a couple days or more...your skin’s all a-crawlin’, heart’s a-pounding, and you want that drink so bad...you get all shaky and once in jail I almost died from a seizure. See, you should take some Valium for that but I was in jail. Sometimes you see things...I once saw a six foot rabbit and another time I thought snakes were crawling on me…”
- “I took that antabuse shit and it about killed me…”
Alcohol Addiction Model Case: 

Jim

Alcohol Detoxification

**High risk for injury** R/T tonic-clonic movements secondary to alcohol withdrawal seizures

**RC Alcohol Withdrawal Syndrome**

* Buprenorphine
* Bupropion
Nursing Diagnoses #4

- **RC Alcohol Withdrawal (Carp. p. 908)** (6 to 96 hours p last drink)
  - Nursing Goals *(note that these protocol may vary by facility policy; compare with CIWA Protocol)*:
    - No seizures
    - No delirium
    - Pulse 60-100
    - BP > 90/60 and < 140/90
    - No ATP
    - No tremors

Imbalanced Nutrition: Less than body requirements

R/T Decreased desire to eat secondary to alcoholism

- Cognitive dysfunction
- Wernicke’s Encephalopathy and Korsakoff’s Syndrome are 2 stages of same problem:
  - Heavy alcohol use leads to poor nutrition and also inhibits B vitamin absorption (especially B1, Thiamine). B vitamins are not absorbed. This leads to brain damage, psychosis, ataxia, abnormal eye movements; alcohol neuropathy.
Family Nursing Diagnoses

(Syndrome Diagnoses, see Carpenito p. 765-766)

Dysfunctional Family Processes: Alcoholism
  Or
Ineffective Family Coping: Alcoholism
  Or
Disabled Family Coping: Alcoholism
  Or
Alcoholic Family Syndrome

AEB multiple alcohol-related incarcerations, addictive behaviors in adolescent son, denial of severity of the problem, guilt
Fetal Alcohol Syndrome

- **Prenatal exposure to alcohol**
- Fetal alcohol effects,
- Alcohol-related birth defects (ARBD)
- Alcohol-related neurodevelopment disorder (ARND)
- Fetal alcohol spectrum disorders (FASDs)
- Alcohol is a teratogen that results in dysmorphia, growth problems, and abnormalities of the central nervous system in multiple ways
Fetal Alcohol Syndrome

- smooth philtrum
- thin upper lip
- microcephaly
- short palpebral fissures
- flat midface
- indistinct philtrum
- micrognathia
- low nasal bridge
- epicanthal folds
- minor ear anomalies
- palm crease

fetal alcohol syndrome
Addiction Borderline Case:
Darla
Addiction Borderline Case: 
Darla

- From the outside, the family home was well presented; the household was reasonably well kept. However, all members of the family agreed that this appearance was the doing of Darla alone. Jim and Ryan admitted that they never helped with any upkeep. In fact, Jim and Ryan performed no household chores. Darla prepared the meals; Darla did all the shopping; Darla did all the cleaning.
Addiction Related Case:

Darla

- The family usually did not share meals together because all members agreed that sharing meals resulted in fighting, and sometimes the fights were violent.
- The only family leisure time activity was watching television. However, there were three televisions in the home, and each member viewed a television alone, so this was not really a family activity. Darla did not watch television.
- Ryan and Jim were very pleasant and even charming. Darla was visibly troubled—the family issues were overwhelming, and were not improving. When Darla cried, Jim and Ryan looked at the floor.
Addiction Contrary Case: Jenny
Addiction Contrary Case:

Jenny

- Eight-year-old Jenny likes to play with her dolls a lot, all day in fact. When she plays with her dolls she invents imaginary situations that include family fights and violence.

- Jenny says she loves her dolls, and she carries one with her all the time. She left one behind once and the family had to turn around to go get it.
Motivational Interviewing (MI)

- MI is an invitation to change
- Avoid judgment—it is frustrating that our patients do not change but guess what? Neither do we.

We (healthcare providers) have the idea that we know better **BUT THIS IS FALSE.**

*(Rollnick, Miller and Butler, 2008)*
Important Stages for MI

- Not Interested in Changing
- Ambivalent about Changing
- Committed to Changing

*(Rollnick, Miller and Butler, 2008)*
MI Stages: What To Do

- **Not Interested in Changing:** Avoid alienating the patient with judgment, empathize, use validation
  - Raise doubt, provide information *(with permission only!)*, and keep an open door

- **Ambivalent about Changing:** Move the patient toward change instead of against it
  - Assess the patient’s desire to change
  - Tip the balance

- **Committed to Changing:** Make a Collaborative Plan
  - Help patient to determine best course of action and take steps toward change

*(Rollnick, Miller and Butler, 2008)*
Ambivalence

- Lack of motivation is often ambivalence
- If you argue for one side, an ambivalent person will defend the other
- As a person defends the status quo, likelihood of change decreases
- Resist urge to take-up “good” side of ambivalence

(Rollnick, Miller and Butler, 2008)
Ambivalence

- Efforts to persuade patients to change increase their resistance to change.

- Clearly, nurses become more effective change agents by “asking patients why they would want to make a change and how they might do it rather than telling them that they should”

Signs of Readiness for Change

- Decreased resistance
- Decreased questions about the problem
- Resolve
- **Self-motivational statements**
- Increased questions about change
- Envisioning
- **Experimenting with change**

*(Rollnick, Miller and Butler, 2008)*
MI: Developing Discrepancy

- Awareness of consequences is important
- A discrepancy between present behavior and important goals will motivate change
- The patient should present the arguments for change

(Rollnick, Miller and Butler, 2008)
Motivational Interviewing

**MI Questions for Ambivalence**

- Why would you want to make this change?
- If you decided to do it, how would you go about it?
- What are the three best reasons to make this change?
- What would it be like if you changed?
- On a scale of 0-10, how important is it for you to make this change.
- Do you see any room for change?
- What would it take to make the change?

(Rollnick, Miller and Butler, 2008)
Addiction Exemplar #II
Co-Occurring Disorders (Dual Diagnosis)
Addiction and Co-Occurring Disorders
AKA Dual Diagnosis

- *Specifically refers to unique challenges faced by individuals who are chemically dependent AND have serious psychological distress (SPD) such as:*
  - Bipolar Affective Disorder (BPAD)
  - Schizophrenia
  - Major Depressive Episode (MDE)
  - Anxiety disorders, personality disorders (*especially antisocial and borderline pd), others

- *DUAL DIAGNOSIS NURSING is highly specialized but recognition at BSN level can facilitate change process*
Selected Statistics

(USDHSS, 2008)

- US adult SPD in 2007 age 18-25 = 18%
- Illicit drug use among all adults with SPD = 28% (12.2% for no SPD)
- Adult substance dependence (addiction) among SPD = 22.1% (7.6% if no SPD)
- Major Depressive Episodes (MDE) for female youth age 12 to 17 = 12% (boys 4.6%) and girls with severe impairment = 8.2% (boys 3%)
- All youth (age 12-17) with MDE and drug or alcohol dependence = 18.9% (6.7% if no MDE)
Types of Dual Diagnosis

1. Person with mental illness turns to alcohol or street drugs to self-soothe or self-medicate

2. Chemical or alcohol dependency can cause symptoms of mental illness such as depression, anxiety and psychosis

(USDHSS, 2008)
Dual Dx Treatment

- Mental illness and dependency must be treated simultaneously.
- On one side, much depends on which substances have been abused and for how long.
- On the other side, the nature of the mental struggle and its impact on behavior is key.
- **Dual diagnosis treatment involves unraveling the patient history. First step is usually detox.**
Motivational Interviewing and DDx

MI is a highly recommended component of a comprehensive treatment approach to DDx and nurses are in the ideal position to implement MI (Why?).

To do so, the nurse must adapt her MI technique. First, however, she should understand the **POSSIBLE BENEFITS OF ILICIT DRUGS FOR DDX PATIENTS** (Rollnick, Miller and Butler, 2008)

- Street drugs may improve *negative psychotic symptoms*
- Street drugs may *reduce discomfort of positive symptoms*
- Drug use may *facilitate social interactions*
- *May mask psychosis as substance induced* (substance induced psychosis is more socially acceptable)
Examples of DDx patient situations

1. A pt. with endocarditis who wants to stop heroin for health reasons but continues its use to control derogatory auditory hallucinations

2. A pt. with severe negative sx may use cocaine to feel euphoric instead of emotionally flat despite financial hardship

3. “Mental patients” may use drugs to fit in with peers of their age and not attend program to avoid stigma

(Rollnick, Miller and Butler, 2008)
**Self-perpetuating** Challenges To Dual Dx Management... (“Frequent Flyers”)

I. Difficulty Developing Positive Social Relationships
   - Mental illness and drug use lead to loss of support systems
   - Addiction is a more socially acceptable identity than mental illness so once support systems are lost there is acceptance by drug culture

II. Environmental Factors
   - Drug use leads to housing difficulties
   - Living on the street increases access to drugs

III. Relapse
   - Drug use interferes with the efficacy of prescribed medication and increases symptoms of a mental illness
   - Mental Illness symptoms lead to need for drugs.

*(Rollnick, Miller and Butler, 2008)*
Modifications to Your MI for DDx

I. Pt. may be too psychotic to benefit from MI or DANGEROUSNESS (suicidal/homicidal) may require REMOVAL OF FREEDOM, which contradicts MI principles

**IF** reality testing is reasonable;

I. Try paraphrasing often to maintain organized dialogue

II. Interpret with metaphor or simile (“like” or “as”)

III. **AVOID EXPLORING DESPERATION** to avoid escalating

IV. Stay concrete when eliciting change talk

V. **DO Explore motivation for street drug use (estabhishes alliance)**

VI. Target medication and program compliance

*(Rollnick, Miller and Butler, 2008)*
References

- The Betty Ford Institute Consensus Panel (2007)