A Short History of the DSM

- The DSM-1 (1952), 106 disorders across several major categories, reflecting a psychodynamic perspective on etiology

- DSM II (1968), 182 disorders, similar framework as DSM-1; like DSM-1, it lacked specification of specific symptoms of many disorders; distinguished among disorders at broader levels of neurosis, psychosis, and personality disturbance

- DSM-III (1980) and DSM-III-R (1987), which focused on standardization of diagnostic categories by linking them to specific criteria or symptom clusters, expressed in colloquial language; included 265 diagnoses in DSM-III and 292 in DSM-III-R, which changed some of the diagnostic criteria

- DSM-IV (1994) and DSM-IV-TR (2000), 297 disorders, relatively minor changes

Major Changes

Change	Comment
Elimination of multiaxial system and GAF	Clinicians wanted simplified, diagnosis-based system; distinctions between Axis I and Axis II disorders were never clearly justified; clinicians can still specify external stressors; new assessment measures will be introduced
Establishes 20 diagnostic classes or categories of mental disorders	Categories based on groupings of disorders sharing similar characteristics; some categories represent spectrums of related disorders
Introduction of new diagnostic category of Neurodevelopmental Disorders to include Autism Spectrum Disorder and ADHD and other disorders reflecting abnormal brain development	Increasing emphases on neurobiological bases of mental disorders and the developing understanding that abnormal brain development underlies many types of disorders

Major Changes

Change	Comment
Introduces more dimensionality (severity ratings) but does not restructure personality disorders as some had proposed	Major changes in personality disorders held over until next revision, the DSM 5.1 (or maybe 5.2)
Roman numerals dropped: DSM-5, not DSM-V	Allows for easier nomenclature for midcourse revisions, 5.1, 5.2, etc.
Removes obsessive-compulsive disorder from category of Anxiety Disorders and places it in new category of Obsessive-Compulsive and Related Disorders	Recognizes a spectrum of obsessive-compulsive type disorders, including body dysmorphic disorder; however, anxiety remains the core feature of OCD, so questions remain about separating it from anxiety disorders

Major Changes

Change	Comment
Removes ASD and PTSD from Anxiety Disorders and places them in new category of Trauma and Stressor-Related Disorders	Groups all stress-related psychological disorders under the same umbrella; Adjustment Disorders may now be coded in context of traumatic stressors
Creates new diagnostic category of Substance-Related and Addictive Disorders	Now includes Gambling Disorder (previously Pathological Gambling) but other forms of nonchemical addiction, such as compulsive Internet use and compulsive shopping, don't make it into the manual and remain under study
Eliminates distinction between substance abuse and dependence disorders, collapsing them into single category of substance use disorders	Recognizes that there is no clear line between substance abuse and dependence disorders; also brings certain compulsive patterns of behavior into a spectrum of addictive disorders

Major Changes

Change	Comment
Provides a means of rating severity of symptoms, such as for ASD	Encourages clinicians to recognize the dimensionality of disorders
Greater emphasis on comorbidity; e.g., use of anxiety ratings in diagnosing depressive and bipolar disorders	Provides more explicit recognition of comorbidity in having clinicians rate level of anxiety in mood disorders

Major Changes

Change	Comment
Elimination of term “somatoform disorders” (now Somatic Symptom and Related Disorders)	Eliminates a term few people understood (somatoform disorders) and now emphasizes the psychological reactions to physical symptoms, not whether they are medically based
Reorganization of mood disorders into two separate diagnostic categories of Depressive Disorders and Bipolar and Related Disorders	No major changes anticipated, but no clear basis for eliminating umbrella construct of mood disorders

Major Changes

Change	Comment
Removal of developmental trajectory in organizing classification of disorders: Eliminates category of "Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence"	May make it easier to diagnose traditional childhood disorders like ADHD and even separation anxiety disorder in adults. Conversely, it may also make it easier to diagnose disorders typically seen in adults, like bipolar disorder, in children. The new category of Neurodevelopmental Disorders includes many disorders previously classified as childhood onset disorders, however it excludes disorders involving abnormal emotional development, such as separation anxiety disorder and selective mutism. Where does this new classification leave the study of child psychopathology?
Elimination of bereavement exclusion from major depression	Recognizes that a major depressive episode may overlay a normal reaction to loss; critics claim it may pathologize bereavement

Major Changes

Change	Comment
Hypochondriasis dropped as distinct disorder	Eliminates the pejorative term “hypochondriasis”; people formerly diagnosed with hypochondriasis may now be diagnosed with Somatic Symptom Disorder if their physical symptoms are significant or with Illness Anxiety Disorder if their symptoms are minor or mild
Factitious Disorder moved to Somatic Symptom and Related Disorders	Associated with other somatic symptom disorders, but is distinguished by intentional fabrication of symptoms for no apparent gain other than assuming medical patient role

Diagnostic Categories

Diagnostic Category	Examples of Specific Disorders
Neurodevelopmental Disorders	Autism Spectrum Disorder Specific Learning Disorder Communication Disorders ADHD, Motor Disorders, etc.
Schizophrenia Spectrum and Other Psychotic Disorders	Schizophrenia Schizophreniform Disorder Schizoaffective Disorder Delusional Disorder Schizotypal Personality Disorder
Bipolar and Related Disorders	Bipolar I Disorder, Bipolar II Disorder Cyclothymic Disorder
Depressive Disorders	Disruptive Mood Dysregulation Disorder Major Depressive Disorder Persistent Depressive Disorder Premenstrual Dysphoric Disorder

Diagnostic Categories

Diagnostic Category	Examples of Specific Disorders
Anxiety Disorders	Specific Phobia Social Anxiety Disorder (Social Phobia) Panic Disorder Agoraphobia Generalized Anxiety Disorder Separation Anxiety Disorder Selective Mutism
Obsessive-Compulsive and Related Disorders	Obsessive-Compulsive Disorder Body Dysmorphic Disorder Hoarding Disorder Hair-Pulling Disorder (Trichotillomania) Excoriation (Skin-Picking) Disorder
Trauma and Stressor Related Disorders	Adjustment Disorders Acute Stress Disorder Posttraumatic Stress Disorder Reactive Attachment Disorder Disinhibited Social Engagement Disorder

Diagnostic Categories

Diagnostic Category	Examples of Specific Disorders
Dissociative Disorders	Dissociative Identity Disorder Dissociative Amnesia Depersonalization/Derealization Disorder
Somatic Symptom and Related Disorders	Somatic Symptom Disorder Illness Anxiety Disorder Conversion Disorder (Functional Neurological Symptom Disorder) Factitious Disorder
Feeding and Eating Disorders	Anorexia Nervosa Bulimia Nervosa Binge Eating Disorder Pica, Rumination Disorder Avoidant/Restrictive Food Intake Disorder
Elimination Disorders	Enuresis Encopresis

Diagnostic Categories

Diagnostic Category	Examples of Specific Disorders
Sleep-Wake Disorders	Insomnia Disorder Hypersomnolence Disorder Narcolepsy Breathing-Related Sleep Disorders Circadian Rhythm Sleep-Wake Disorders Parasomnias: Sleepwalking, Sleep Terrors, Nightmare Disorder, Rapid Eye Movement Sleep Behavior Disorder Restless Legs Syndrome
Sexual Dysfunctions	Delayed Ejaculation Erectile Disorder Female Orgasmic Disorder Female Sexual Interest/Arousal Disorder Genito-Pelvic Pain/Penetration Disorder Male Hypoactive Sexual Desire Disorder Premature (Early) Ejaculation

Diagnostic Categories

Diagnostic Category	Examples of Specific Disorder
Gender Dysphoria	Gender Dysphoria
Disruptive, Impulse-Control, and Conduct Disorders	Oppositional Defiant Disorder Intermittent Explosive Disorder Conduct Disorder Antisocial Personality Disorder Pyromania Kleptomania
Substance-Related and Addictive Disorders	Substance Use Disorders Substance-Induced Disorders Gambling Disorder
Neurocognitive Disorders	Delirium Major & Mild Neurocognitive Disorders

Diagnostic Categories

Diagnostic Category	Examples of Specific Disorders
Personality Disorders	Paranoid Personality Disorder Schizoid Personality Disorder Schizotypal Personality Disorder Antisocial Personality Disorder Borderline Personality Disorder Histrionic Personality Disorder Narcissistic Personality Disorder Avoidant Personality Disorder Dependent Personality Disorder Obsessive-Compulsive Personality Disorder

Diagnostic Categories

Diagnostic Category	Examples of Specific Disorders
Paraphilic Disorders	Voyeuristic Disorder Exhibitionistic Disorder Frotteuristic Disorder Sexual Masochism Disorder Sexual Sadism Disorder Pedophilic Disorder Fetishistic Disorder Transvestic Disorder
Other Mental Disorders	Other Specified Mental Disorder due to Another Medical Condition

The (Dearly?)Departed:
Dropped or Consolidated Diagnoses

- **Somatization Disorder** (gone)
- **Amnestic Disorders** (amnesia now a feature of neurocognitive disorders)
- **Dissociative Fugue** (now a subtype of dissociative amnesia)
- **Pain Disorder** (gone)
- **Hypochondriasis** (cases now divided between Somatic Symptom Disorder and Illness Anxiety Disorder depending on severity of physical symptoms)
- **Asperger's Disorder** (may now be diagnosed as ASD)
- **Childhood Disintegrative Disorder** (may now be diagnosed as ASD)
- **Pervasive Developmental Disorder NOS** (may now be diagnosed as ASD)
- **Vaginismus and Dyspareunia** (now Genito-Pelvic Pain/Penetration Disorder)
- **Gender Identity Disorder** (now Gender Dysphoria)
- **Sexual Aversion Disorder** (dropped, most cases reclassifiable as specific phobia)

Graduation Day:
Moving On Up (and out of the Appendix)

- Binge Eating Disorder
- Premenstrual Dysphoric Mood Disorder
- Mild Neurocognitive Disorder
- Caffeine Withdrawal
- Factitious Disorder by Proxy (now called factitious disorder imposed on another)

Name Changes

Was (DSM-IV)	Will Now Be (DSM-5)
Gender Identity Disorder	Gender Dysphoria
Sleep Disorders	Sleep-Wake Disorders
Dysthymic Disorder	Persistent Depressive Disorder (Dysthymia)
Learning Disorders	Specific Learning Disorder
Stuttering	Child Onset Fluency Disorder (Stuttering)
Phonological Disorder	Speech Sound Disorder
Mental Retardation	Intellectual Disability (Intellectual Developmental Disorder)
Depersonalization Disorder	Depersonalization/Derealization Disorder
Hypersomnia	Hypersomnolence Disorder

Name Changes (continued)

Was (DSM-IV)	Will Now Be (DSM-5)
Circadian Rhythm Sleep Disorder	Circadian Rhythm Sleep-Wake Disorder
Breathing-Related Sleep Disorder	Obstructive Sleep Apnea Hypopnea Syndrome, Central Sleep Apnea, or Sleep-Related Hypoventilation
Primary Insomnia	Insomnia Disorder
Male Orgasmic Disorder	Delayed Ejaculation
Premature Ejaculation	Premature (Early) Ejaculation
Male Erectile Disorder	Erectile Disorder
Female Sexual Arousal Disorder	Female Sexual Interest/Arousal Disorder
Hypoactive Sexual Desire Disorder	Now either Male Hypoactive Sexual Desire Disorder or Female Sexual Interest/Arousal Disorder

Name Changes (continued)

Was (DSM-IV)	Will Now Be (DSM-5)
Sleepwalking Disorder, Sleep Terror Disorder	Non-Rapid Eye Movement Sleep Arousal Disorders: Sleepwalking, Sleep Terrors
Social Phobia	Social Anxiety Disorder (Social Phobia)
Autistic Disorder	Autism Spectrum Disorder

New Kids on the Block:
Newly Diagnosed Disorders

- Disruptive Mood Dysregulation Disorder
- Somatic Symptom Disorder
- Illness Anxiety Disorder
- Hoarding Disorder
- Excoriation (Skin-Picking Disorder)
- Disinhibited Social Engagement Disorder
- Avoidant/Restrictive Food Intake Disorder
- Social (Pragmatic) Communication Disorder
- Restless Leg Syndrome
- Rapid Eye Movement Sleep Behavior Disorder

Controversies

Point of Controversy	Concerns
Expansion of diagnosable disorders	Net result of diagnostic inflation may be to greatly expand the numbers of people labeled as suffering from a mental disorder or mental illness; e.g., Mild Neurocognitive Disorder may pathologize mild cognitive changes or everyday forgetting in older adults; e.g., Disruptive Mood Dysregulation Disorder may pathologize repeated temper tantrums in children
Changes in classification of mental disorders	Critics question whether changes in classification are justified and might lead to greater diagnostic confusion; parents of Asperger's children are concerned their children may not qualify for the new ASD diagnosis and associated treatment benefits

Controversies

Point of Controversy	Concerns
Changes in diagnostic criteria for particular disorders	Critics contend that many of the changes in the diagnostic criteria have not been sufficiently validated. Particular concerns are raised about the substantial changes made in the set of symptoms used to diagnose Autism Spectrum Disorders, which may have profound effects on the numbers of children identified as suffering from these disorders
Process of development	Critics claim development of the DSM-5 was shrouded in secrecy, that it failed to incorporate input from many leading researchers and scholars in the field, and that changes to the diagnostic manual were not clearly documented based on an adequate body of empirical research

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Bipolar Disorders
&
Depressive Disorders

DSM-5, 2013

No More "Mood Disorders"

* Bipolar disorder and depression have now each been placed in their own chapter in the DSM-5.
* Whereas once we had a mood disorders chapter, now we have a Bipolar and Related Disorders and a Depressive Disorders chapter.

Bipolar and Related Disorders

* Bipolar I Disorder
* Bipolar II Disorder
* Cyclothymic Disorder
* Substance/Medication-Induced Bipolar and Related Disorder
* Bipolar and Related Disorder Due to Another Medical Condition
* Other Specified Bipolar and Related Disorder
* Unspecified Bipolar and Related Disorder

Depressive Disorders

* Disruptive Mood Dysregulation Disorder
* Major Depressive Disorder, Single and Recurrent Episodes
* Persistent Depressive Disorder (Dysthymia)
* Premenstrual Dysphoric Disorder
* Substance/Medication-Induced Depressive Disorder
* Depressive Disorder Due to Another Medical Condition
* Other Specified Depressive Disorder
* Unspecified Depressive Disorder

Substance Classes

- Alcohol
- Caffeine
- Cannabis
- Hallucinogens
  - PCP
  - others
- Inhalants
- Opioids
- Sedatives, hypnotics, and anxiolytics
- Stimulants
- Tobacco
- Other

Gambling

Substance-Related Disorders

- 2 Groups:
  - Substance Use Disorders
    - Previously split into abuse or dependence
    - Involves: impaired control, social impairment, risky use, and pharmacological criteria
  - Substance-Induced Disorders

Substance Use Disorder Dx Criteria

- Using larger amounts or for longer time than intended
- Persistent desire or unsuccessful attempts to cut down or control use
- Great deal of time is spent obtaining, using, or recovering
- Craving or a strong desire or urge to use
- Failure to fulfill major roles at work, school, or home
- Persistent social or interpersonal problems caused by substance use

Substance Use Disorder

- Important social, occupational, recreational activities given up or reduced
- Use in physically hazardous situations
- Use despite physical or psychological problems caused by use
- Tolerance
- Withdrawal (not documented after repeated use of PCP, inhalants, hallucinogens)

Severity

- Severity
  - Depends on # of symptom criteria endorsed
  - Mild: 2-3 symptoms
  - Moderate: 4-5 symptoms
  - Severe: 6 or more symptoms

Specifiers

- Specifiers
  - In early remission: no criteria for > 3 months but < 12 months (except craving)
  - In sustained remission: no criteria for > 12 months (except craving)
  - In a controlled environment: access to substance restricted (ex. Jail)

Substance-Induced

- Intoxication
- Withdrawal
- Psychotic Disorder
- Bipolar Disorder
- Depressive Disorder
- Anxiety Disorder
- Sleep Disorder
- Delirium
- Neurocognitive
- Sexual Dysfunction

Differential Diagnosis

Intoxication

- Reversible substance-specific syndrome due to recent ingestion of a substance
- Behavioral/psychological changes due to effects on CNS developing after ingestion:
  - ex. Disturbances of perception, wakefulness, attention, thinking, judgment, psychomotor behavior and interpersonal behavior
- Not due to another medical condition or mental disorder
- Does not apply to tobacco

Clinical picture of intoxication depends on:

- Substance
- Dose
- Route of Administration
- Duration/chronicity
- Individual degree of tolerance
- Time since last dose
- Person's expectations of substance effect
- Contextual variables

Withdrawal

- Substance-specific syndrome of problematic behavioral change due to stopping or reducing prolonged use
- Physiological & cognitive components
- Significant distress in social, occupational or other important areas of functioning
- Not due to another medical condition or mental disorder
- No withdrawal: PCP; other hallucinogens; inhalants

Substance-Induced Mental Disorder

- Potentially severe, usually temporary, but sometimes persisting CNS syndromes
- Develop in the context of substances of abuse, medications, or toxins
- Can be any of the 10 classes of substances or by a variety of other meds used in medical treatment

Substance-Induced Mental Disorder

- Clinically significant presentation of a mental disorder
- Evidence from history, physical exam, labs
  - During or within 1 month of use &
  - Substance is capable of producing the mental disorder
- Not an independent mental disorder, e.g.,
  - Preceded onset of use OR
  - Persists for substantial time after cessation of use/withdrawal/intoxication

Neuroadaptation:

- Refers to underlying CNS changes that occur following repeated use such that person develops tolerance and/or withdrawal
  - Pharmacokinetic – adaptation of metabolizing system (what the body does to the drug; how it processes it)
  - Pharmacodynamic – the effects of the drug on the body (biological or physiological effects of the drug on the organism)

Tolerance

- Need to use an increased amount of a substance in order to achieve the desired effect

OR

- Markedly diminished effect with continued use of the same amount of the substance

Epidemiology: Prevalence

- NIDA ’04: 22.5M > 12yo – substance-related d/o
  15M – Alcohol Dependence or Abuse
- Start at earlier age (<15yo), more likely to become addicted – eg. alcohol: 18% vs. 4% (if start at 18yo or older)
- Rates of abuse vary by age: 1% (12yo) - 25% (21yo) - 1% (65yo)
- Men; American Indian; whites; unemployed; large metro areas; parolees

Epidemiology (cont.)

- ETOH - $300 billion/year
- 13 million require treatment for alcohol
- 5.5 million require treatment for drug use
- 2.5% population reported using Rx meds nonmedically within past month

Epidemiology (cont.)

- 40%+ of hospital admissions have alcohol or drugs associated
- 25% of all hospital deaths
- 100,000 deaths/year
- Intoxication is associated with 50% of all MVAs (motor vehicle accidents), 50% of all DV (domestic violence) cases and 50% of all murders

ER Visits (NIDA ‘09)

- 1.2M: non-medical use of pharmaceuticals
- 660K: alcohol
- 425K: cocaine
- 380K: marijuana
- 210K: heroin
- 93K: stimulants

Etiology

- Multiple interacting factors influence using behavior and loss of decisional flexibility
- Not all who become dependent experience it same way or motivated by same factors
- Different factors may be more or less important at different stages (drug availability, social acceptance, peer pressure vs. personality and biology)

Etiology

- “Brain Disease” – changes in structure and neurochemistry transform voluntary drug-using compulsive
- Changes proven but necessary/sufficient? (drug-dependent person changes behavior in response to positive reinforcers)
- Psychodynamic: disturbed ego function (inability to deal with reality)

Etiology

- Self-medication
  - EtOH - panic; opioids - anger; amphetamine - depression
- Genetic (well-established with alcohol)
- Conditioning: behavior maintained by its consequences
  - Terminate aversive state (pain, anxiety, w/d)
  - Special status
  - Euphoria
  - Secondary reinforcers (e.g. Paraphernalia)

Etiology

- Receptors
  - Too little endogenous opioid activity (i.e., low endorphins) or too much endogenous opioid antagonist activity = increased risk of dependence.
  - Normal endogenous receptor but long-term use modulates, so need exogenous substance to maintain homeostasis.
- Neurotransmitters
  - Opioid
  - Catecholamines
  - GABA
  - Serotonin

- Pathways

Learning and Physiological Basis for Dependence

- After using drugs or when stopped – leads to a depleted state resulting in dysphoria and/or cravings to use, reinforcing the use of more drug.
- Response of brain cells is to down-regulate receptors and/or decrease production of neurotransmitters that are in excess of normal levels.

Comorbidity

- **Up to** 50% of addicts have comorbid psychiatric disorder
  - Antisocial PD
  - Depression
  - Suicide

???

Typical Presentation and Course:

- Present in acute intoxication, acute/chronic withdrawal or substance induced mood, cognitive disorder or medical complications
- Abstinence depends on several factors: social, environmental, internal factors (presence of other comorbid psychiatric illnesses)
- Remission and relapses are the rule (just like any other chronic medical illness)
- Frequency, intensity and duration of treatment predicts outcome
- 70 % eventually able to abstain or decrease use to not meet criteria

Options for where to treat

- Hospitalization-

  -Due to drug OD, risk of severe withdrawal, medical comorbidities, requires restricted access to drugs, psychiatric illness with suicidal ideation

- Residential treatment unit

  -No intensive medical/psychiatric monitoring needs

  -Require a restricted environment

  -Partial hospitalization

- Outpatient Program -No risk of med/psych morbidity and highly motivated patient

Treatment

- Manage Intoxication & Withdrawal
  - Intoxication
    - Ranges: euphoria to life-threatening emergency
  - Detoxification
    - outpatient: "social detox" program
    - inpatient: close medical care
    - preparation for ongoing treatment

Treatment

- Behavioral Interventions (target internal and external reinforcers)
  - Motivation to change (MI)
  - Group Therapy
  - Individual Therapy
  - Contingency Management
  - Self-Help Recovery Groups (AA)
  - Therapeutic Communities
  - Aversion Therapies
  - Family Involvement/Therapy
  - Twelve-Step Facilitation
  - Relapse Prevention

Treatment

- Pharmacologic Intervention
- Treat Co-Occurring Psychiatric Disorders
  - 50% will have another psychiatric disorder
- Treat Associated Medical Conditions
  - cardiovascular, cancer, endocrine, hepatic, hematologic, infectious, neurologic, nutritional, GI, pulmonary, renal, musculoskeletal

Alcohol

ALCOHOL- CNS depressant

- **Intoxication**
  - Blood Alcohol Level - 0.08g/dl
  - Progress from mood lability, impaired judgment, and poor coordination to increasing level of neurologic impairment (severe dysarthria, amnesia, ataxia, obtundation)
- Can be fatal (loss of airway protective reflexes, pulmonary aspiration, profound CNS depression)

Alcohol Withdrawal

- Early
  - anxiety, irritability, tremor, HA, insomnia, nausea, tachycardia, HTN, hyperthermia, hyperactive reflexes
- Seizures
  - generally seen 24-48 hours
  - most often Grand mal
- Withdrawal Delirium (DTs)
  - generally between 48-72 hours
  - altered mental status, hallucinations, marked autonomic instability
  - life-threatening

Alcohol Withdrawal (cont.)

- CIWA (Clinical Institute Withdrawal Assessment for Alcohol)
- Assigns numerical values to orientation, N/V, tremor, sweating, anxiety, agitation, tactile/ auditory/ visual disturbances and HA. VS checked but not recorded. Total score of > 10 indicates more severe withdrawal
- Based on severity of withdrawal or history of previous withdrawal seizures or DTs, med therapy can be scheduled or symptom-triggered

Alcohol Withdrawal (cont.)

- Benzodiazepines
  - GABA agonist - cross-tolerant with alcohol
  - reduce risk of SZ; provide comfort/sedation
- Anticonvulsants
  - reduce risk of SZ and may reduce kindling
  - helpful for protracted withdrawal
  - Carbamazepine or Valproic acid
- Thiamine supplementation
  - Risk thiamine deficiency (Wernicke/Korsakoff)

Alcohol treatment

- Outpatient CD treatment:
  - support, education, skills training, psychiatric and psychological treatment, AA
- Medications:
  - Disulfiram
  - Naltrexone
  - Acamprosate

Medications - ETOH Use Disorder

- Disulfiram (antabuse) 250mg-500mg po daily
  - Inhibits aldehyde dehydrogenase and dopamine beta hydroxylase
  - Aversive reaction when alcohol ingested- vasodilatation, flushing, N/V, hypotenstion/ HTN, coma / death
  - Hepatotoxicity - check LFT's and h/o hep C
  - Neurologic with polyneuropathy / paresthesias that slowly increase over time and increased risk with higher doses
  - Psychiatric side effects - psychosis, depression, confusion, anxiety
  - Dermatologic rashes and itching
  - Watch out for disguised forms of alcohol - cologne, sauces, mouth wash, OTC cough meds, alcohol based hand sanitizers, etc

Medications - ETOH Use Disorder

- Naltrexone 50mg po daily
  - Opioid antagonist thought to block mu receptors reducing intoxication euphoria and cravings
  - Hepatotoxicity at high doses so check LFT's

- Acamprosate(Campral) 666mg po tid
  - Unknown MOA but thought to stabilize neuron excitation and inhibition - may interact with GABA and Glutamate receptor - cleared renally (check kidney function)

Benzodiazepine(BZD)/ Barbiturates

Benzodiazepine(BZD)/ Barbiturates

- **Intoxication**
  - similar to alcohol but less cognitive/motor impairment
  - variable rate of absorption (lipophilia) and onset of action and duration in CNS
  - the more lipophilic and shorter the duration of action, the more "addicting" they can be
  - all can by addicting

Benzodiazepine

Withdrawal

- Similar to alcohol with anxiety, irritability, insomnia, fatigue, HA, tremor, sweating, poor concentration - time frame depends on half life
- Common detox mistake is tapering too fast; symptoms worse at end of taper
- Convert short elimination BZD to longer elimination half life drug and then slowly taper
- Outpatient taper- decrease dose every 1-2 weeks and not more than 5 mg Diazepam dose equivalent
  - 5 diazepam = 0.5 alprazolam = 25 chlordiazepoxide = 0.25 clonazepam = 1 lorazepam
- May consider carbamazepine or valproic acid especially if doing rapid taper

Benzodiazapines

- Alprazolam (Xanax) t 1/2 6-20 hrs
- *Oxazepam (Serax) t 1/2 8-12 hrs
- *Temazepam (Restoril) t 1/2 8-20 hrs
- Clonazepam (Klonopin) t 1/2 18-50 hrs
- *Lorazepam (Ativan) t1/2 10-20 hrs
- Chlordiazepoxide (Librium) t1/2 30-100 hrs (less lipophilic)
- Diazepam (Valium) t ½ 30-100 hrs (more lipophilic)

*Oxazepam, Temazepam & Lorazepam- metabolized through only glucuronidation in liver and not affected by age/ hepatic insufficiency.

Opiods

OPIOIDS

Bind to the mu receptors in the CNS to modulate pain

- **Intoxication-** pinpoint pupils, sedation, constipation, bradycardia, hypotension and decreased respiratory rate
- **Withdrawal-** not life threatening unless severe medical illness but extremely uncomfortable. s/s dilated pupils lacrimation, goosebumps, n/v, diarrhea, myalgias, arthralgias, dysphoria or agitation
- **Rx**- symptomatically with antiemetic, antacid, antidiarrheal, muscle relaxant (methocarbamol), NSAIDS, clonidine and maybe BZD
- **Neuroadaptation:** increased DA and decreased NE

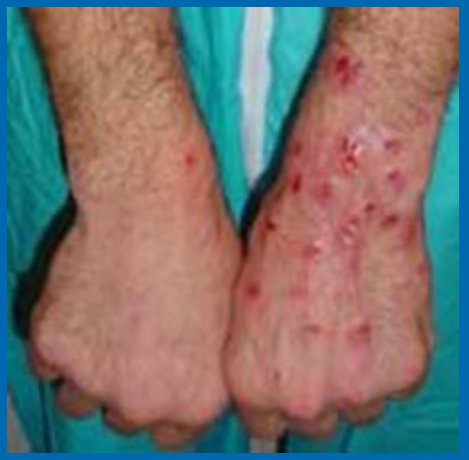
Treatment - Opiate Use Disorder

- CD treatment
  - support, education, skills building, psychiatric and psychological treatment, NA
- Medications
  - Methadone (opioid substitution)
  - Naltrexone
  - Buprenorphine (opioid substitution)

Treatment - Opiate Use Disorder

- Naltrexone
  - Opioid blocker, mu antagonist
  - 50mg po daily
- Methadone
  - Mu agonist
  - Start at 20-40mg and titrate up until not craving or using illicit opioids
  - Average dose 80-100mg daily
  - Needs to be enrolled in a certified opiate substitution program
- Buprenorphine
  - Partial mu partial agonist with a ceiling effect
  - Any physician can Rx after taking certified ASAM course
  - Helpful for highly motivated people who do not need high doses

Stimulants



STIMULANTS

- **Intoxication (acute)**
  - psychological and physical signs
  - euphoria, enhanced vigor, gregariousness, hyperactivity, restlessness, interpersonal sensitivity, anxiety, tension, anger, impaired judgment, paranoia
  - tachycardia, papillary dilation, HTN, N/V, diaphoresis, chills, weight loss, chest pain, cardiac arrhythmias, confusion, seizures, coma

STIMULANTS (cont.)

- **Chronic intoxication**
  - affective blunting, fatigue, sadness, social withdrawal, hypotension, bradycardia, muscle weakness
- **Withdrawal**
  - not severe but have exhaustion with sleep (crash)
  - treat with rest and support

Cocaine

- Route: nasal, IV or smoked
- Has vasoconstrictive effects that may outlast use and increase risk for CVA and MI (obtain EKG)
- Can get rhabdomyolsis with compartment syndrome from hypermetabolic state
- Can see psychosis associated with intoxication that resolves
- **Neuroadaptation:** cocaine mainly prevents reuptake of DA

Treatment - Stimulant Use Disorder (cocaine)

- CD treatment including support, education, skills, CA
- Pharmacotherapy
  - No medications FDA-approved for treatment
  - If medication used, also need a psychosocial treatment component

Amphetamines

- Similar intoxication syndrome to cocaine but usually longer
- Route - oral, IV, nasally, smoked
- No vasoconstrictive effect
- Chronic use results in neurotoxicity possibly from glutamate and axonal degeneration
- Can see permanent amphetamine psychosis with continued use
- Treatment similar as for cocaine but no known substances to reduce cravings
- **Neuroadaptation**
  - inhibit reuptake of DA, NE, SE - greatest effect on DA

Treatment – Stimulant Use Disorder (amphetamine)

- CD treatment: including support, education, skills, CA
- No specific medications have been found helpful in treatment although some early promising research using atypical antipsychotics (methamphetamine)

Tobacco

Tobacco

- Most important preventable cause of death / disease in USA
- 25%- current smokers, 25% ex smokers
- 20% of all US deaths
- 45% of smokers die of tobacco induced disorder
- Second hand smoke causes death / morbidity
- Psychiatric pts at risk for Nicotine dependence- 75%-90 % of Schizophrenia pts smoke

Tobacco (cont.)

- **Drug Interactions**
  - induces CYP1A2 - watch for interactions when start or stop (ex. Olanzapine)
- **No intoxication diagnosis**
  - initial use associated with dizziness, HA, nausea
- **Neuroadaptation**
  - nicotine acetylcholine receptors on DA neurons in ventral tegmental area release DA in nucleus accumbens
- **Tolerance**
  - rapid
- **Withdrawal**
  - dysphoria, irritability, anxiety, decreased concentration, insomnia, increased appetite

Treatment – Tobacco Use Disorder

- Cognitive Behavioral Therapy
- Agonist substitution therapy
  - nicotine gum or lozenge, transdermal patch, nasal spray
- Medication
  - bupropion (Zyban) 150mg po bid,
  - varenicline (Chantix) 1mg po bid

Hallucinogens

HALLUCINOGENS

- Naturally occurring - Peyote cactus (mescaline); magic mushroom(Psilocybin) - oral
- Synthetic agents – LSD (lysergic acid diethyamide) - oral
- DMT (dimethyltryptamine) - smoked, snuffed, IV
- STP (2,5-dimethoxy-4-methylamphetamine) – oral
- MDMA (3,4-methyl-enedioxymethamphetamine) ecstasy – oral

MDMA (XTC or Ecstacy)

- Designer club drug
- Enhanced empathy, personal insight, euphoria, increased energy
- 3-6 hour duration
- **Intoxication**- illusions, hyperacusis, sensitivity of touch, taste/ smell altered, "oneness with the world", tearfulness, euphoria, panic, paranoia, impairment judgment
- Tolerance develops quickly and unpleasant side effects with continued use (teeth grinding) so dependence less likely

MDMA (XTC or Ecstacy)cont.

- **Neuroadaptation**- affects serotonin (5HT), DA, NE but predominantly 5HT2 receptor agonists
- **Psychosis**
  - Hallucinations generally mild
  - Paranoid psychosis associated with chronic use
  - Serotonin neural injury associated with panic, anxiety, depression, flashbacks, psychosis, cognitive changes.
- **Withdrawal** – unclear syndrome (maybe similar to mild stimulants-sleepiness and depression due to 5HT depletion)

Cannabis

CANNABIS

- Most commonly used illicit drug in America
- THC levels reach peak 10-30 min, lipid soluble; long half life of 50 hours
- **Intoxication-**
  - Appetite and thirst increase
  - Colors/ sounds/ tastes are clearer
  - Increased confidence and euphoria
  - Relaxation
  - Increased libido
  - Transient depression, anxiety, paranoia
  - Tachycardia, dry mouth, conjunctival injection
  - Slowed reaction time/ motor speed
  - Impaired cognition
  - Psychosis

CANNABIS (cont.)

- **Neuroadaptation**
  - CB1, CB2 cannabinoid receptors in brain/ body
  - Coupled with G proteins and adenylate cyclase to CA channel inhibiting calcium influx
  - Neuromodulator effect; decrease uptake of GABA and DA

- **Withdrawal** - insomnia, irritability, anxiety, poor appetite, depression, physical discomfort

CANNABIS (cont.)

- **Treatment**

  -Detox and rehab

  -Behavioral model

  -No pharmacological treatment but may treat other psychiatric symptoms

PCP

PCP in both crystalline form and a vial of
PCP dissolved in water

PHENACYCLIDINE (PCP)
"Angel Dust"

- Dissociative anesthetic
- Similar to Ketamine used in anesthesia
- **Intoxication**: severe dissociative reactions – paranoid delusions, hallucinations, can become very agitated/ violent with decreased awareness of pain.
- Cerebellar symptoms - ataxia, dysarthria, nystagmus (vertical and horizontal)
- With severe OD - mute, catatonic, muscle rigidity, HTN, hyperthermia, rhabdomyolsis, seizures, coma and death

PCP cont.

- **Treatment**
  - antipsychotic drugs or BZD if required
  - Low stimulation environment
  - acidify urine if severe toxicity/coma
- **Neuroadaptation**
  - opiate receptor effects
  - allosteric modulator of glutamate NMDA receptor
- **No tolerance or withdrawal**

Websites

- SAMHSA – www.samhsa.gov
  - Substance Abuse and Mental Health Services Administration
- NIDA – www.drugabuse.gov
  - National Institute on Drug Abuse
- AAAP – www.aaap.org
  - American Academy of Addiction Psychiatry
- ASAM – www.asam.org
  - American Society of Addiction Medicine

DSM-5

Gambling Disorder

From the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (**section 312.31**)

Substance-Related Disorders and Other Addictions

- **Gambling Disorder -- DSM-5 Diagnostic Criteria:**
- A. Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting **four (or more)** of the following in a 12-month period:

1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
2. Is restless or irritable when attempting to cut down or stop gambling.
3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed). After losing money gambling, often returns another day to get even ("chasing" one's losses).
6. Lies to conceal the extent of involvement with gambling.
7. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
8. Relies on others to provide money to relieve desperate financial situations caused by gambling.

B. The gambling behavior is not better explained by a manic episode.

Specifiers for Severity

- *Specify* current severity:
  - **Mild:** 4–5 criteria met
  - **Moderate:** 6–7 criteria met
  - **Severe:** 8–9 criteria met

Other Specifiers

- *Specify* if*:*
  Episodic: Meeting diagnostic criteria at more than one time point, with symptoms subsiding between periods of gambling disorder for at least several months.
  Persistent: Experiencing continuous symptoms, to meet diagnostic criteria for multiple years.
- *Specify* if*:*
  In early remission: After full criteria for gambling disorder were previously met, none of the criteria for gambling disorder have been met for at least 3 months but for less than 12 months.
  In sustained remission: After full criteria for gambling disorder were previously met, none of the criteria for gambling disorder have been met during a period of 12 months or longer.

DSM-5 AND EATING DISORDERS

- **How does this affect people diagnosed with eating disorders?**
- The DSM-5 includes changes from the previous DSM, which aim to better represent the behaviors and symptoms of people dealing with eating disorders. In order to do this there are updated clinical classification categories for eating disorders, and changes to diagnostic criteria (symptom lists).
- One of the most notable changes is that Binge Eating Disorder (BED) has been acknowledged as a separate diagnosis for the first time ever. This will help increase awareness of the differences between Binge Eating Disorder and the more common issue of overeating.

DSM-5 AND EATING DISORDERS

- Additionally, the category that was known as Eating Disorder Not Otherwise Specified (EDNOS), has been removed. There are two new categories; Other Specified Feeding or Eating Disorder (OSFED) and Unspecified Feeding or Eating Disorder (UFED).
- These new categories are intended to more appropriately recognize and categorize conditions that do not more accurately fit into Anorexia Nervosa, Bulimia Nervosa, BED, or the other eating and feeding disorders. It is important to note that these new categories are not an indication of a less severe eating disorder, simply a different constellation of symptoms.
- Another significant change is the inclusion of some types of 'Feeding Disorders' that were previously listed in other chapters of the DSM, and now listed together with eating disorders.

ANOREXIA NERVOSA

- Persistent restriction of energy intake leading to significantly low body weight (in context of what is minimally expected for age, sex, developmental trajectory, and physical health) .
- Either an intense fear of gaining weight or of becoming fat, or persistent behaviour that interferes with weight gain (even though significantly low weight).
- Disturbance in the way one's body weight or shape is experienced, undue influence of body shape and weight on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

SUBTYPES OF ANOREXIA NERVOSA

- Restricting type
- Binge-eating/purging type
  - Specify Severity:
  - Mild: BMI $\geq$ 17kg/m^2
  - Moderate: BMI 16--16.99 kg/m^2
  - Severe: BMI 15--15.99 kg/m^2
  - Extreme: BMI < 15 kg/m^2

BULIMIA NERVOSA

- Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
  - Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
  - A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).
- Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise.
- The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for three months.
- Self-evaluation is unduly influenced by body shape and weight.
- The disturbance does not occur exclusively during episodes of Anorexia Nervosa.
  - continued

BULIMIA NERVOSA LEVELS OF SEVERITY

- DSM-5 has the clinician determine level of severity using the following criteria:
  - Mild: 1-3 episodes per week
  - Moderate: 4-7 episodes per week
  - Severe: 8-13 episodes per week
  - Extreme: An average of 14 or more episodes of inappropriate compensatory behavior per week.

BINGE EATING DISORDER

- **Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:**
  - Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
  - A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).
- **The binge eating episodes are associated with three or more of the following**:
  - eating much more rapidly than normal
  - eating until feeling uncomfortably full
  - eating large amounts of food when not feeling physically hungry
  - eating alone because of feeling embarrassed by how much one is eating
  - feeling disgusted with oneself, depressed or very guilty afterward

BINGE EATING DISORDER

- Marked distress regarding binge eating is present
- Binge eating occurs, on average, at least once a week for three months
- Binge eating not associated with the recurrent use of inappropriate compensatory behaviors as in Bulimia Nervosa and does not occur exclusively during the course of Bulimia Nervosa, or Anorexia Nervosa methods to compensate for overeating, such as self-induced vomiting.
- Note: Binge Eating Disorder is less common but much more severe than overeating. Binge Eating Disorder is associated with more subjective distress regarding the eating behavior, and commonly other co-occurring psychological problems.

BED LEVELS OF SEVERITY

- Mild: 1-3 binge-eating episodes per week
- Moderate: 4-7 episodes per week
- Severe: 8-13 episodes per week
- Extreme: 14 or more binge-eating episodes per week

PICA

- Persistent eating of non-nutritive substances for a period of at least one month.
- The eating of non-nutritive substances is inappropriate to the developmental level of the individual.
- The eating behavior is not part of a culturally supported or socially normative practice.
- If occurring in the presence of another mental disorder (e.g. autistic spectrum disorder), or during a medical condition (e.g. pregnancy), it is severe enough to warrant independent clinical attention.

- Note: Pica often occurs with other mental health disorders associated with impaired functioning.

RUMINATION DISORDER

- Repeated regurgitation of food for a period of at least one month Regurgitated food may be re-chewed, re-swallowed, or spit out.
- The repeated regurgitation is not due to a medication condition (e.g. gastrointestinal condition).
- The behavior does not occur exclusively in the course of Anorexia Nervosa, Bulimia Nervosa, BED, or Avoidant/Restrictive Food Intake disorder.
- If occurring in the presence of another mental disorder (e.g. intellectual developmental disorder), it is severe enough to warrant independent clinical attention.

AVOIDANT/RESTRICTIVE FOOD INTAKE DISORDER (ARFID)

- An Eating or Feeding disturbance as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one (or more) of the following:
- Significant loss of weight (or failure to achieve expected weight gain or faltering growth in children).
- Significant nutritional deficiency
- Dependence on enteral feeding or oral nutritional supplements
- Marked interference with psychosocial functioning

(continued)

ARFID CONTINUED

- The behavior is not better explained by lack of available food or by an associated culturally sanctioned practice.
- The behavior does not occur exclusively during the course of anorexia nervosa or bulimia nervosa, and there is no evidence of a disturbance in the way one's body weight or shape is experienced.
- The eating disturbance is not attributed to a medical condition, or better explained by another mental health disorder. When is does occur in the presence of another condition/disorder, the behavior exceeds what is usually associated, and warrants additional clinical attention.

OTHER SPECIFIED FEEDING OR EATING DISORDER (OSFED)

- According to the DSM-5 criteria, to be diagnosed as having OSFED a person must present with a feeding or eating behaviors that cause clinically significant distress and impairment in areas of functioning, but do not meet the full criteria for any of the other feeding and eating disorders.
- A diagnosis might then be allocated that specifies a specific reason why the presentation does not meet the specifics of another disorder (e.g. Bulimia Nervosa- low frequency). The following are further examples for OSFED:

OSFED CONTINUED

- **Atypical Anorexia Nervosa**: All criteria are met, except despite significant weight loss, the individual's weight is within or above the normal range.
- **Binge Eating Disorder** (of low frequency and/or limited duration)**:** All of the criteria for BED are met, except at a lower frequency and/or for less than three months.
- **Bulimia Nervosa** (of low frequency and/or limited duration): All of the criteria for Bulimia Nervosa are met, except that the binge eating and inappropriate compensatory behavior occurs at a lower frequency and/or for less than three months.

OSFED (MORE EXAMPLES)

- **Purging Disorder:** Recurrent purging behaviour to influence weight or shape in the absence of binge eating
- **Night Eating Syndrome:** Recurrent episodes of night eating. Eating after awakening from sleep, or by excessive food consumption after the evening meal. The behavior is not better explained by environmental influences or social norms. The behavior causes significant distress/impairment. The behavior is not better explained by another mental health disorder (e.g. BED).

UNSPECIFIED FEEDING OR EATING DISORDER (UFED)

- According to the DSM-5 criteria this category applies to where behaviors cause clinically significant distress/impairment of functioning, but do not meet the full criteria of any of the Feeding or Eating Disorder criteria. This category may be used by clinicians where a clinician chooses not to specify why criteria are not met, including presentations where there may be insufficient information to make a more specific diagnosis (e.g. in emergency room settings).