

Chapter 9 - TREATMENT

Chapter Overview

The most prevalent mind disorder is substance abuse. It causes more health and social problems than any other disease. Fortunately it is treatable and has as good or better treatment successes than those of other diseases like cancer, heart problems, diabetes, or arthritis. Current issues in treatment include:

- the rapidly expanding use of medications for detoxification and withdrawal, and long-term abstinence;
- the use of sophisticated brain-imaging techniques to study brain function;
- the creation of more effective tools to diagnose addiction and match clients to the most effective treatment including tools to more accurately assess withdrawal symptoms;
- an understanding of the neurophysiology involved with drug cravings and the recovery process;
- an emphasis on evidence-based treatment practices;
- drug courts and coerced treatment;
- the lack of sufficient treatment resources
- continued controversy over abstinence-based and harm reduction modes of treatment.

Treatment leads to recovery in 50% to 80% of cases and saves at least \$0.33 to \$39 in actual costs for every \$1 spent. Treatment results in crime reduction. Treatment can be customized for culture, gender, ethnic origin, and other specialized populations.

This chapter examines the principles and goals of treatment, the different treatment options available, selection of a specific treatment approach, initiating treatment, the continuum of treatment (detoxification, initial abstinence, long-term abstinence, and recovery), individual/group therapy, the involvement of the family, adjunctive treatment services, drug specific treatments, target populations (culturally consistent treatment), and the recent developments in treatment medications. Preventing relapse after treatment include addressing the challenges of cognitive deficits, cravings (endogenous/intrapersonal and environmental/interpersonal triggers) and post acute withdrawal symptoms (PAWS).

Behavioral addiction treatments are examined and require the same intensity and continuum of treatment as substance use disorders.

This chapter also covers motivational interviewing, stages of change model, treatment in prisons, intervention strategies, and obstacles to effective treatment.

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INTRODUCTION (9.1-9.6)

Drug abuse treatment is effective. For example, treatment outcomes in one study demonstrate up to 80% and higher one year continuous sobriety rates. Such rates compare favorably with success rates in treating other chronic illness such as diabetes, asthma, and hypertension.

I. A Disease of the Brain (9.2)

Chemical dependency and addiction are indeed diseases of the brain, every bit as prevalent as mental illness, brain tumors, and head traumas. In fact the former has a much greater impact on society than the latter. If addiction were curbed, the quality of life would improve worldwide.

II. Current Issues in Treatment (9.2-9.6)

Eight aspects of chemical and behavioral dependency treatment dominate research, clinical practice, and discussion.

1. Medications are being used more frequently to treat detoxification and withdrawal, lessen craving, substitute less damaging drugs, induce nutritional supplements, control depression, etc.
2. Brain imaging and other new diagnostic techniques, e.g., CAT, MRI, fMRI, PET, SPECT, and DTI, are now used to visualize the structural and physiological effects of addiction.
3. More-effective tools exist to diagnose addiction and better match clients to specific treatment interventions.
4. There is a deeper understanding of the neuroscience of relapse and recovery, e.g., new areas of the brain that correlate to the chances of relapsed (stay-stopped areas).
5. Evidence-based best practices are eclipsing practice-based treatments.
6. Research indicates coerced treatment (e.g., drug courts) is just as effective in promoting positive outcomes as voluntary treatment.
7. Treatment has been proven effective, but there is a lack of treatment resources to provide it. For every \$1 spent on treatment, up to \$39 is saved, mostly in prison costs, lost time on the job, healthcare costs, and social services. The Mental Health Parity and Addiction Equity Act, of 2008 established substance use disorder as a medical condition and mandated funding for treatment, as of yet, the changes in the system are few.
8. Differing attitudes between abstinence-oriented recovery and harm reduction persist. Harm reduction includes, drug replacement therapy, needle exchange, decriminalization, and controlled drinking. Most treatment centers employ an abstinence-based philosophy that also incorporates many harm reduction techniques.

TREATMENT EFFECTIVENESS

Treatment outcomes for drug and alcohol abuse result in long-term abstinence along with tremendous health, social, and spiritual benefits.

III. Treatment Studies (9.6)

California realized savings of \$7 for every \$1 spent on treatment. Other variables were examined that supported treatment concepts and practices:

- Treatment was most effective when patients were treated for at least six to eight months. Group therapy was more effective than individual therapy.
- Shorter periods of treatment resulted in poorer outcomes, longer treatment, in better outcomes.
- Group therapy proved better than individual therapy.
- Drug of choice affected outcomes.
- Better treatment outcomes resulted from program modifications that were culturally consistent with a specific target population.

IV. Drug Abuse Treatment Outcome Study (9.6-9.7)

In the Drug Abuse Treatment Outcome Study (DATOS), researchers found post-treatment use of all drugs was reduced 50% to 70%, and short- and long-term residential programs had the greatest effect.

A. Treatment Episode Data Sets (9.6)

Descriptive information about admissions to substance-abuse treatment providers is collected by the Treatment Episode Data Sets (TEDS) survey. Their information is available through publications and online.

B. The National Survey of Substance Abuse Treatment Services (9.7)

The National Survey of Substance Abuse Treatment Services (N-SSATS) is an annual survey all drug treatment facilities in the U.S. Unlike the TEDS survey which focuses on clients entering treatment this survey examines the facilities themselves.

C. Treatment Research Institute, University of Pennsylvania (9.7)

The *Economic Benefits of Drug Treatment* has validated the cost-effectiveness of treatment, finding a cost savings of from \$.33 to \$39 for every dollar spent.

V. Treatment and Prisons (9.7-9.8)

According to a 2010 U.S. Department of Justice report:

On December 31, 2005:

- 2,284,913 Americans were in federal, state, and local prisons (11% were women); 93,000 were in juvenile detention facilities.
- 5 million were on parole or probation.
- About 57% of federal and 20% of state inmates were serving a sentence for a drug offense; 11.5% were arrested for a drug-abuse violation;
- 40% to 65% of arrestees tested positive for alcohol or drugs;
- of those on probation, 24% violated a drug law and 17% had a DUI conviction.

Other problems: treatment slots are available for only about 10% of those who have serious drug habits; drug-abuse treatment reduces recidivism when treatment is linked to community services; fewer than 17% of incarcerated offenders with drug problems received treatment while in prison.

PRINCIPLES AND GOALS OF TREATMENT

VI. Principles of Effective Treatment (9.9)

Principles of Drug Addiction Treatment lists 13 principles of effective treatment.

1. Addiction is a complex but treatable disease that affects brain function and behavior.
2. No single treatment is appropriate for all individuals.
3. Treatment must be readily available.
4. Effective treatment attends to all needs of an individual, not just drug use.
5. An individual's treatment and services plan must be assessed continually.
6. Remaining in treatment for enough time is critical for positive outcomes.
6. Medications are an important element of treatment.
7. An individual's treatment and services plan must be continually assessed and modified when necessary.
8. Many addicts have other mental disorders.
9. Detoxification is only the first stage of treatment and by itself does little to change long-term use.
10. Treatment need not be voluntary to be effective.
11. Drug use during treatment must be monitored continuously.
12. Treatment should provide assessment to HIV/AIDS, hepatitis B and C and other infectious diseases.

VII. Principles of Drug-Abuse Treatment for Criminal Justice System (CJS) Populations (9.8-9.9)

More than 30 years of research by the National Institute on Drug Abuse on people involved with the justice system has evolved a similar set of 13 principles established in 2006.

1. Drug addiction is a brain disease that affects behavior.
 2. Recovery from addiction requires effective treatment.
 3. Treatment must last long enough to produce stable behavioral changes.
 4. Assessment is the first step in treatment.
 5. Services must be tailored to fit needs.
 6. Drug use during treatment must be carefully monitored with drug testing.
 7. Treatment should target factors associated with criminal behaviors.
 8. CJS and treatment providers need to be aware of and incorporate each other's supervision requirements.
 9. Continuity of care is essential post incarceration.
 10. A balance of rewards and sanctions be used to encourage positive social behavior and treatment participation.
 11. Offenders with co-occurring disorders require integrated treatment
- Medications are an important element in treatment
Treatments include strategies to prevent or treat chronic medical conditions (i.e. HIV/AIDS, hepatitis B/C, tuberculosis).

VIII. Goals Of Effective Treatment

Many experts agree that the two most important treatment goals are 1) motivating clients towards abstinence and then 2) reconstructing their lives once their focus is redirected away from substance abuse. Treatment is a lifelong process for the addict.

A. Primary Goals (9.9-9.10)

1. **Motivation Toward Abstinence**, usually involving education, counseling, and self-help programs.

2. **Creating a drug-free lifestyle** in all parts of the addict's life including drug

free activities and relapse prevention skills.

A. Supporting Goals (9.10)

- 1. Enriching job or career functioning**, through vocational services, personal finance management, and maintenance of a drug-free workplace.
- 2. Optimizing medical functioning.**
- 3. Optimizing psychiatric and emotional functioning.**
- 4. Addressing relevant spiritual issues.**

SELECTION OF A PROGRAM

Most program selections are spontaneous, based on cost, familiarity, location, and convenience of access. Evidence-based assessment tools match addicts to an appropriate level of care

IX. Diagnosis (9.10-9.12)

Diagnostic tools are used to help verify, support, or clarify the potential diagnosis of chemical addiction. The most common are:

- American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*;
- Selective Severity Assessment (SSA) evaluates 11 physiologic signs to confirm the severity of the addiction;
- National Council on Alcoholism Criteria for Diagnosis of Alcoholism (NCA CRIT) and its Modified Criteria (MODCRIT);
- Addiction Severity Index (ASI) (the most comprehensive and lengthy criteria)
- Michigan Alcoholism Screening Test (MAST);
- CAGE Questionnaire (the simplest assessment tool for problem drinking, consists of just four questions).
- AUDIT, CRAFT, RAPS4, SAAST, T-ACE, TWEAK, DAST, PESQ, 4P Plus, ASSIST, NM-ASSIST, ASAM PPC-2R.

X. Treatment Options (9.12-9.14)

No one treatment is universally effective for everyone. A wide range of options exists. Treatment options exist in a range:

- from “cold turkey” or “white knuckle” dry outs to medical managed detox
- from expensive medical or residential programs to free, self-help peer groups
- from outpatient treatment, to halfway houses, to residential programs
- from long-term residential programs (two-years or more) to seven-day hospital stays with aftercare
- from methadone maintenance, to replacement therapies, other harm reduction techniques to a dozen other options.

A. Types of Facilities 9.12-9.14)

1. Medical model detoxification programs can be inpatient, residential, or outpatient.
2. Residential/inpatient treatment short-term (1 to 28 days)
3. Partial hospitalization and day treatment are outpatient medical model programs.
4. Intensive outpatient programs: Methadone maintenance and other replacement therapies are considered outpatient medical model programs.
5. Office-based medical detoxification and maintenance treatment for opiate

6. Social model detoxification programs are nonmedical (no or minimal medical staff presence) and are either residential or outpatient. Social model recovery programs (also called outpatient drug-free programs); includes outpatient programs.
7. Therapeutic communities (TCs) are long-term (1 to 3 years) self-contained residential programs that provide full rehabilitative and social services.
8. Halfway houses permit addicts to keep their jobs and outside contacts while participating in a residential treatment program.
9. Several religious movements and faith-based treatment initiatives also use halfway house or inpatient treatment programs.
10. Sober-living and transitional-living programs are for clients who have completed a long-term residential program.
11. Harm reduction programs, consist mainly of pharmacotherapy maintenance approaches.

B. Admissions (9.14)

From early 1990 to 2010, TEDS documents 1.6 -1.9 million people were treated in various programs and facilities. It is estimated that another 17.4 million hardcore alcoholics and 6.4 million need illicit-drug treatment but did not receive needed care. About 68% of all clients were male, 60% were white, 38% were referred to treatment through the criminal justice system.

BEGINNING TREATMENT

Recovery is a lifelong process because the brain cells have been permanently changed. The brain cell disease of addiction can be treated and arrested but not reversed nor cured.

XI. Recognition and Acceptance (9.15-9.18)

Addicts and alcoholics rarely accept the diagnosis of their addiction from others and self-diagnosis often requires the addict to hit bottom as life with alcohol or drug abuse become unmanageable. Recognition can also arrive through being the subject of an intervention or face criminal consequences for not complying with treatment. Only then can lifelong recovery begin. Coerced treatment via criminal justice sanctions can actually help an addict realize that they have hit bottom.

A. HITTING BOTTOM (9.15-9.16)

The earlier addiction is recognized, accepted, and treated, the more likely the individual will have good health and enjoy a rewarding life. Addicts need not hit bottom to accept that they have a chemical dependency problem and participate in treatment.

B. DENIAL (9.16)

Overcoming denial is the first and the most difficult step in all treatment. Denial is a refusal to acknowledge the negative impact that drug use is having on a person's life. The medical profession has a tendency to deny or overlook addiction, further compounding the problem. One study found that 45% of patients with substance abuse problems said their doctor was unaware of their condition.

C. BREAKING THROUGH DENIAL (9.16-9.18)

The addict is usually the last person to recognize and accept her or his addiction.

- Legal Intervention
- Workplace Intervention
- Physical Health Problems
- Pregnancy
- Mental Health Problems
- Financial Difficulties

D. INTERVENTION (9.17-9.18)

Interventions are used to challenge denial by confronting addicts and helping them recognize a dependence on drugs. Strategies have been developed to attack an addict's denial. A formal intervention should be tried after informal interventions have failed. Most interventions include the following elements:

1. **Love.** An intervention should always start and end with an expression of love.
2. **Facilitator.** An intervention specialist or a knowledgeable treatment professional should organize the intervention
3. **Intervention Statements.** Each team member prepares a statement that they will personally present to the addicted person at the intervention.
4. **Anticipated Defenses and Outcomes.** The facilitator prepares the team to deal with denial, rationalization, anger, and accusations.
5. **Intervention.** Timing, location, and surprise are crucial components of the intervention.
6. **Contingency.** Team members continue to meet after the intervention to process their experiences.

TREATMENT CONTINUUM

Addiction is a depressing and degrading process, often accompanied with major depression and suicide attempts. Recovery is gradual, and a client undergoes several changes regardless of which therapy is used: detoxification, initial abstinence, long-term abstinence (sobriety), and continuous recovery.

XII. Detoxification (9.19-9.20)

If a client is still using, eliminating the drug from the body is the first step. It takes about a week to completely excrete a drug such as cocaine and perhaps another 4 weeks to 10 months until the body chemistry settles down. Social or non-medically supervised programs require clients to go through a medical detoxification or be 72 hours clean and sober before admittance.

The initial detoxification can be "white knuckle" or medically/chemically assisted detoxification, to minimize withdrawal symptoms. Assessment of the severity is a crucial first step to detoxification. Severe physical dependence on depressants can require hospitalization where detox is aimed at minimizing withdrawal symptoms that can cause life-threatening effects or an immediate relapse.

A. Medication Therapy for Detoxification (9.19-9.20)

A variety of medications are used during the detoxification phase to ease the symptoms of withdrawal and minimize the initial drug cravings; e.g., clonidine (Catapres®), phenobarbital, methadone, buprenorphine naltrexone, psychiatric medications, anticonvulsant medications, bromocriptine, acamprostate, bupropion, varenicline, nicotine patches, and amino acids.

Medical intervention alone is rarely effective during the detoxification phase. Intensive counseling and group work have proven to be effective in breaking down residual denial and engaging the client in the full recovery process. Treatment focuses on educating the addict about the disease concept of addiction, its harmful effects and symptoms of detoxification. Some programs use structured, evidence-based treatment manuals that have a developed curriculum.

XIII. Initial Abstinence (9.20)

Body chemistry must be allowed to regain balance. Depletion of neurotransmitters causes drug hunger, known as endogenous craving. Medical approaches include Antabuse® for alcoholism and naltrexone for opioids. In addition to endogenous craving, post-acute withdrawal symptoms (PAWS) and environmentally cued craving begin and continue during treatment. They pose powerful threats to continued sobriety.

XIV. Long-Term Abstinence (9.20-9.21)

The key component to long-term abstinence is the addict's acceptance that addiction is lifelong and treatment is both long-term and a one-day-at-a-time process. Continued participation in group, family, and 12-step programs is the key to maintaining long-term abstinence from all drugs. It is vital that recovering addicts understand that the problem is chemical dependency or drug compulsivity, not alcoholism or addiction to a particular drug. They are advised to abstain from all abusable psychoactive substances, especially alcohol. Drug switching complicates and reverses recovery-oriented treatment.

XV. Recovery (9.21)

Recovering addicts must restructure their lives and discover things that give them joy, pleasure and satisfaction resulting from natural highs instead of the artificial highs they came to seek through drugs. Continued participation in 12-step or other groups is the path down which most recovering addicts have found success.

XVI. Relapse Prevention (9.21-9.24)

A relapse must be aggressively processed by the client and the counselor so that the causes can be identified and strategies developed to avoid future slips and relapses.

A. Cognitive Deficits (9.22)

About 30% to 80% of substance abusers suffer from mild to severe cognitive impairments, especially impairments of learning, use and meaning of words, attention span, perception, information processing, etc. Patients often appear normal during the early phase of treatment but are actually experiencing an inability to fully understand and process the treatment curriculum. It may take weeks or months after detoxification for reasoning to return to a point where the individual can begin to fully engage in treatment.

B. Post-Acute Withdrawal Symptoms (PAWS) (9.22-9.23)

PAWS is a group of emotional and physical symptoms that appear after major withdrawal symptoms have abated. The syndrome can persist for 6 to 18 months or longer. Symptoms include sleep disturbances, memory problems, inability to think clearly, anxiety, and physical coordination difficulties.

C. Cravings: Endogenous (internal) Triggers and Environmental (external)

1. Endogenous Triggers (Internal or Intrapersonal Triggers) having the greatest impact are negative emotional and physical states or internally motivated attempts to regain control in order to use. Acronyms like HALT (hungry, angry, lonely, tired) remind addicts of these triggers.

Abuse of an addictive drug disrupts brain chemistry resulting in an allostasis (imbalance) and a depletion of certain neurotransmitters which reinforces drug craving. Counseling, education, support from a sponsor, stress-reduction therapies, and participation in 12-step meetings are common treatment strategies.

2. Environmental Triggers (External or Interpersonal) often precipitate drug cravings e.g., relationship conflicts, social pressures, lack of support systems, negative life events, sensory stimuli (odors, sights, objects), and slippery people, places and things. Environmental triggers are manifested by true physiological responses to psychological triggers.

XVII. Relapse prevention Strategies (9.24)

Relapse prevention has become the focus of almost every treatment program.

Addicts must

- recognize their personal triggers
- develop behaviors to avoid external triggers
- have an automatic reflex strategy that will prevent them from responding to internal or external cues.

A. Cue Extinction (9.24)

Dr. Anna Rose Childress's Desensitization Program retrains brain cells to avoid reacting when confronted by environmental cues (cue extinction).

B. Psychosocial Support (9.24)

Initial abstinence is the phase during which addicts start to put their lives back in order. Building a support system is vital, one that provides advice, help, and information when they return home and back to work.

C. Natural Highs (9.24)

Humans can create virtually every sensation and feeling from natural life situations (sports, art, dance, travel) that drugs create.

XVIII. Outcome and Follow-Up (9.24-9.25)

Client outcomes and follow-up evaluations are a major element in treatment program activities. All types of addiction treatment have demonstrated positive client outcomes. Chief indicators of successful addiction treatment include:

- prevalence of drug slips and relapses
- retention in treatment
- completion of a treatment plan
- family functioning
- social and environmental adjustments
- vocational or education functioning
- criminal activity or legal involvement.

INDIVIDUAL VS. GROUP THERAPY

Medical treatments are only effective when integrated with psychosocial therapies.

This therapy deals with clients on a one-on-one basis to explore the reasons for their continued drug abuse and to identify needs with the aim of changing behavior.

A. Motivational Interviewing and Motivational Enhancement Therapy (9.26)

Cognitive-behavioral therapy, reality therapy, aversion therapy, psychodynamic therapy, art therapy, motivational interviewing or enhancement, and social skills training are used. Individual treatment may continue over months, years.

1. Motivational Interviewing and Motivational Enhancement Therapy

One of the most common counseling techniques is motivational interviewing coupled with a stages-of-change model. The technique uses a nonconfrontational style to involve clients in their own recovery process and help them change ambivalence about drug use into motivation to make the changes that lead to recovery. Motivational interviewing strives to express empathy, roll with resistance, develop and recognize discrepancies, and support self-efficacy by empowering clients to choose their own options.

It guides clients through the stages of change:

- precontemplation
- contemplation
- determination (preparation)
- action
- maintenance and relapse prevention

XX. Group Therapy (9.26-9.31)

A major focus of group therapy is encouraging clients to help each other break the isolation of addiction and gain experience and understanding from each other.

A. Facilitated Groups (9.26-9.27)

Facilitated group therapy usually consists of six or more clients who meet with therapists or counselors on a daily, weekly, or monthly basis. Therapists facilitate the group, presenting topics, encouraging participants, and sharing their clinical insight.

B. Peer Groups (9.27)

In peer group therapy, therapists play a less active role in the group's dynamics. They observe interaction and are available to process any conflicts or areas of need but do not direct the process.

C. Self-Help Groups and Alcoholics Anonymous (12-step groups) (9.27-9.28)

AA is the most widespread recovery movement in history. This peer group concept is based on 12 steps of recovery. Groups meet without a professional therapist or facilitator, problems are addressed and solved through personal/spiritual change.

D. Spirituality and Recovery (9.28)

Spiritual and faith-based treatment interventions have a long and positive tradition in the recovery community. There is a 60% to 80% correlation between religion or spirituality and better health. Nonscientific language and religious passages can be more acceptable than clinical language, but scripture can also be judgmental and condemning. There is also the danger that the client will take a

E. The 12 Steps of Alcoholics Anonymous (9.28-9.29)

The steps begin with “We admitted we were powerless over alcohol [cocaine, cigarettes, food, gambling] and that our lives had become unmanageable” and end with “Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs”. The 10 steps in between these two elements guide the addict through spiritual self-improvement that encourages continued sobriety and emotional growth. The 12 steps can work for any addictive behavior. One study at UCLA found that attendance at a 12-step program increased six-month abstinence rate almost twofold over those not attending meetings on completion of treatment.

F. Educational Groups (9.29-9.30)

Trained counselors provide the education and often bring in other experts to promote individual lesson plans. Homework is often assigned to help addicts understand information, as well as workbooks and other teaching resources.

G. Targeted Groups (9.30)

Focus on specific populations of users, such as men, women, gays and lesbians, physicians, and those with a dual diagnosis. People feel more comfortable with those of similar backgrounds or culture.

H. Topic-Specific Groups (9.30)

Participants focus on key issues such as AIDS recover, early recovery, relapse prevention, recovery maintenance, relationships, and codependency. They allow a specific focus on issues that are a threat to their continued recovery.

I. Ten Common Errors Made in Group Treatment by Beginning Counselors (9.30-9.31)

1. Failure to have a realistic view of group treatment.
2. Self-disclosure issues, failure to drop the “mask” of professionalism.
3. Agency culture, personal style.
4. Failure to understand the stages of therapy.
5. Failure to recognize countertransference issues.
6. Failure to clarify group rules
7. Failure to use the entire group effectively
8. Failure to plan in advance
9. Failure to integrate new members into the group
10. Failure to understand interactions in the group as a metaphor for drug-related issues in the group members' family of origin.

TREATMENT AND THE FAMILY

Addiction is considered a family disease because abuse of drugs and alcohol affect all members of an addict's family.

XXI. Goals of Family Treatment (9.32)

1. Acceptance by family members that addiction is a treatable disease, not a moral weakness.
2. Establishing and maintaining a drug-free family system.
3. Developing a system for family communication and interaction.
4. Processing the family's readjustment.

Family therapists use many tools and techniques to accomplish their goals once family members have been motivated to participate, including the following five:

A. Family Systems Approach (9.32)

This model, based on the premise that drug abuse springs from family environments—internal and external—seeks to correct family relationships as the key to correcting substance-abuse problems.

B. Family Behavioral Approach (9.32)

In this approach the therapist works with the family to identify family behaviors associated with drug use, evaluate their relationship to drug use, and provide specific interventions to support and reinforce those behaviors that promote a drug-free family system.

C. Family Functioning Approach (9.32)

1. Functional family systems in which the family has maintained healthy interactions. Interventions are targeted directly at the addict.
2. Neurotic or enmeshed family systems which require intensive family treatment.
3. Disintegrated family systems call for separate yet integrated treatment of families and addicts are used.
4. Absent family systems in which family members are not available for treatment and addicts have developed a family of choice whose members are encouraged to participate in treatment.

D. Social Network Approach (9.32-933)

The family breaks their isolation and develops skills that help them support the recovery effort.

E. TOUGHLOVE® APPROACH (9.33)

In this controversial movement that has grown on the West Coast, the family learns to establish limits for their interaction with the addict which sometimes includes kicking the addict out of the home until the addict agrees to treatment.

XXIII. Other Behaviors (9.33-9.34)

Living with an alcoholic or addict causes family members to become dysfunctional, the most prevalent conditions being codependency, enabling, and manifesting symptoms of being children of addicts or adult children of addicts.

A. Codependency (9.33)

Codependents are mutually dependent on the addicts to fulfill some need of their own. The chances of recovery are greatly reduced unless a codependent is willing to understand their role and submit to treatment themselves.

B. Enabling (9.33)

If a family is dependent on the addiction of a family member, there is a strong tendency to avoid confrontation about the addictive behavior and a subconscious effort to actively perpetuate the addiction. Enabling actually results in deeper addiction because it allows the addict to avoid facing the addiction for a longer period of time. Enablers must accept the role that they play in the addictive cycle and seek therapy to become more effective in the addict's recovery.

C. Childrend of Addicts and Adult children of Addicts (9.33-9.34)

Many children of addicts take on predictable maladaptive behavioral roles that often continue into their adult personalities.

- Model child
- Problem child
- Lost child
- Mascot child or family clown

Although they may not abuse drugs, their behavior can be as dysfunctional as the addict's.

Adult children of addicts/alcoholics

- are isolated and afraid of people and authority figures;
- are approval seekers;
- are frightened by angry people and personal criticism;
- become or marry alcoholics
- confuse love and pity and love people who need rescuing
- repress feelings
- judge themselves harshly
- react rather than act.

Adult Children of Alcoholics (ACoA) is a 12-step program that helps people work through problems that follow them into adulthood, particularly how to

- understand the disease of addiction and alcoholism
- put themselves at the top of their priority list
- detach with love
- feel, accept, and express feelings
- learn to love themselves.

TRAUMA-INFORMED AND TRAUMA-FOCUSED CARE (9.34)

Trauma, especially early childhood and other environmental trauma, plays a major role in addiction. Trauma changes the structure and chemistry of the brain, resulting in a susceptibility to addiction and other mental health disorders.

Trauma-informed care permeates the entire treatment environment. Trauma-focused care is a counseling approach that assumes clients have suffered significant trauma. It is a less confrontational in its therapeutic approaches.

RECOVERY COACH (9.34-9.35)

Another treatment innovation is the personal assistant or monitor for addicts. A recovery coach is also known as a recovery mentor, sober companion, sober escort, sober mentor, recovery support specialist, peer support specialist, family recovery coach, telephone or virtual recovery coach, and legal support specialist recovery coach.

ADJUNCTIVE AND COMPLEMENTARY TREATMENT SERVICES (9.35-9.37)

It is necessary to help identify these various needs and then case-manage addicts toward appropriate treatment or service providers. They include

- arts therapy
- hypnosis
- guided imagery
- eye movement desensitization relaxation, emotional freedom techniques
- virtual-reality graded exposure therapy

- vitamin therapy, amino acid precursor loading
- herbal therapy
- homeopathy
- nootropic or smart drugs
- biofeedback
- dance therapy, somatic psychology
- mindfulness meditation, Qigong
- hatha yoga
- equine therapy
- aromatherapy
- sensory deprivation.

DRUG-SPECIFIC TREATMENT

XXIV. Polydrug Abuse (9.37)

Treatment programs must be aggressive in identifying the total drug profile of their clients. Many substance abusers also practice a behavioral addiction such as compulsive eating. Substance addiction must be addressed as chemical dependency rather than a drug-specific problem.

XXV. Stimulants (Cocaine and Amphetamines) (9.37-9.39)

Methamphetamine abusers are more likely to be male, white, gay or bisexual. A wide range of drug-induced psychiatric symptoms often accompanies stimulant abuse.

A. Detoxification and Initial Abstinence (938-9.39)

The vast majority of stimulant abusers respond positively to traditional drug-counseling approaches, e.g., cognitive-behavioral therapies (CBT) and behavioral therapies, like the Matrix Model, along with 12-step-oriented individual counseling.

Many drugs are medically used to treat various symptoms of stimulant detoxification and initial abstinence: antidepressant agents, monoamine oxidase inhibitor type B, Selegiline, antipsychotic medications, sedatives, nutritional approaches, dopamine agonists, anti-seizure medications, naltrexone, modafinil.

B. Long-Term Abstinence (9.39)

To counter endogenous (internal) craving, many medications mentioned here have been used to stimulate dopamine release. Because environmental craving is so intense in stimulant addiction, continued abstinence over a lifetime weakens the craving response. Cocaine aversion therapy, using disulfiram (Antabuse) is used to induce aversive physical consequences if cocaine is used.

XXVI. Tobacco (9.39-9.41)

The only guarantee of success involving tobacco is never to begin use. The failure rate for most therapies is extremely high. Pharmacological treatments are preferred.

A. Nicotine Replacement Treatment (9.39-9.40)

Nicotine replacement systems include nicotine patches, nicotine gum, nicotine nasal spray, nicotine inhalers and nicotine lozenges.

These systems slowly reduce the blood plasma nicotine levels to the point where cessation will not trigger severe withdrawal. If relapse prevention counseling

therapy, the chances of relapse are high.

The six types of nicotine replacement systems are

1. Nicotine Patches
2. Nicotine Gum
3. Nicotine Nasal Spray
4. Nicotine Inhalers
5. Nicotine Lozenges
6. Electronic Cigarettes

B. Treating the symptoms (9.40)

It is necessary to reduce the anxiety, depression, and craving associated with nicotine withdrawal because those conditions trigger relapse. Only varenicline (Chantix®) and bupropion (Zyban®) are FDA approved to treat nicotine withdrawal and craving, but a number of other medications are being used for these indications, including benzodiazepines, buspirone, fluoxetine (Prozac) and others.

C. Treating the behaviors (9.41)

Most behavioral therapies (CBT, motivational enhancement therapy, brief therapy) include one-on-one counseling, group therapy, educational approaches, aversion therapy, hypnotism, and acupuncture. They attempt to

- desensitize the smoker to environmental cues that trigger craving
- practice alternative methods of self-calming
- avoid places where smoking is rampant
- finding other ways of getting the rush nicotine provides
- educate the smoker about the consequences of tobacco use
- emphasize the benefits of quitting.

XXVII. Opioids (9.41-9.43)

Along with treatment for nicotine addiction, treatment for opioid addiction has the highest rate of relapse. This is partially because physical withdrawal from opioids is more severe than withdrawal from stimulants.

A. Detoxification (9.41)

Methadone, LAAM (no longer available in the U.S.) and buprenorphine are the FDA-approved medications for opioid detoxification. These drugs are substituted for heroin or the abused opioid and are gradually tapered to minimize withdrawal.

B. Initial and Long-Term Abstinence (9.41)

A long-lasting opioid antagonist, such as naltrexone (ReVia®), is used after detoxification and supported by individual counseling sessions, group sessions, or self-help groups such as Narcotics Anonymous. Behavioral therapies like CBT, contingency management, and psychodynamic psychotherapy and family therapy are also used. During the first four to eight weeks of abstinence, daily attendance at treatment sessions is crucial.

C. Recovery (9.41-9.42)

The key to recovery from heroin or other opioid addiction is learning a new lifestyle.

D. Other Opioid Treatment Modalities (9.42-9.43)

treatment for more than 260,000 opioid addicts. Methadone, a synthetic opiate, is less intense than heroin but is longer lasting so it delays heroin-like withdrawal symptoms for 36 to 48 hours. Addicts are maintained on methadone for years as a replacement for their opioid drug of choice.

2. **LAAM** will remain active in the body for up to three days. Because use was connected to severe heart arrhythmias, it is no longer available in the United States and is only used in research settings.

3. **Buprenorphine**, at low doses, is a powerful opioid, 50 times as powerful as heroin, but at doses above 8 to 16 mg, it blocks the opioid receptors. Subutex® is used during the early stage of detoxification; Suboxone® is used thereafter. Licensed physicians can treat patients with buprenorphine in their offices. It can be used for either detoxification or replacement therapy.

XXVIII. Sedative-Hypnotics (Barbiturates and benzodiazepines) (9.43-9.44)

The majority of tranquilizer and sedative abusers tend to be older, White (85% to 89%), and female (59% to 60%). Intensive medical assessment and medically managed treatment are necessary.

A. Detoxification (9.43-9.44)

Substitution therapy (using a drug that is cross-tolerant with another drug) is needed to detoxify dependency on these substances. The initial detoxification from sedative-hypnotics requires intensive daily medical management.

B. Initial Abstinence (9.44)

This requires participation in group, individual, and educational counseling. After detoxification, some addicts experience withdrawal-like symptoms even though they have remained totally abstinent. Because many anti-anxiety medications are abusable sedative-hypnotics, switching addicts to nonbenzodiazepine alternatives, particularly SSRIs like Zoloft®, is preferable. BuSpar® (buspirone) can also be used. Skillful medical management is needed to prevent inappropriate use or relapse.

C. Recovery (9.44)

Continued participation in self-help groups; Benzodiazepine Anonymous, Pills Anonymous, and Narcotics Anonymous has been the most effective means of promoting abstinence and recovery.

XXIX. Alcohol (9.44-9.45)

Alcohol alone was the primary substance of abuse for almost 22.6% of all treatment admissions in the United States in 2010. Marijuana was the most frequently named secondary drug for those treated for alcohol with other abused drugs.

A. Denial (9.44)

Denial on the part of a compulsive drinker is the biggest hindrance to entering treatment, principally because an alcohol problem takes a long time, 10 years on average) to advance to abuse and addiction. Also, alcoholics can't remember the negative effects during their blackouts. Impaired judgment makes it more difficult to connect problems with drinking

B. Detoxification (9.44-9.45)

Up to 10% of untreated alcohol withdrawal and up to 3% of medically treated episodes experience severe, potentially life-threatening symptoms such as seizure activity which requires medical management. Acute intoxication lasts for only 4-8 hours; withdrawal begins within 4-12 hours after cessation of use and is very uncomfortable. Withdrawal and detoxification should include emotional support and basic physical care.

C. Initial Abstinence (9.45)

Antabuse® (disulfiram) is initially used; it makes people ill if they drink alcohol after taking it. The drug is used for six months or longer to help alcoholics get through initial abstinence. In 1996, naltrexone (ReVia®) was approved for the treatment of alcohol addiction, and it decreased the relapse rate by 50% to 70%. Acamprosate (Campral®) has had modest treatment effects in lowering craving. After alcohol has been cleared from the client's system, the clinician must evaluate the client for psychiatric problems. Vivitrol® is an injectable, long-acting form of naltrexone.

D. Long-Term Abstinence and Recovery (9.45)

Clients must begin healing the confusion, immaturity, and emotional scars that kept them drinking for so many years. Relapse is always possible. Recovery is a lifetime process.

XXX. Psychedelics (9.46-9.47)

The overwhelming majority of all arounders users (e.g. LSD, MDMA, and "shrooms") in treatment are male, White, and under the age of 24. The majority of marijuana smokers in treatment are male and under the age of 24. The clinician or intake counselor can make only a tentative diagnosis until the drug has had time to clear. Treatment is most often focused on the intoxication or mental disorder, family dynamics, and social consequences.

A. Bad Trips (acute anxiety reactions) (8.46)

Psychedelics can lead to acute anxiety, paranoia, fear over loss of control, or feelings of grandeur leading to dangerous behaviors. The best treatment for someone on a bad trip is to talk him or her down.

The condition known as hallucinogen persisting perception disorder (HPPD) is the recurrence of some of the symptoms after use has ceased. Addiction is treated with traditional counseling, education, and self-help groups.

Treatment for Bad Trips ARRRT guidelines

A Acceptance

R Reduction of stimuli

R Reassurance.

R Rest

T Talk-down

XXXI. Marijuana (8.46-8.47)

There has been a steady increase in the number of people entering treatment for marijuana dependence. One reason is the wider availability at the street level of high concentration of THC.

Marijuana can cause a true addiction syndrome encompassing both physical and emotional dependence. The physical withdrawal symptoms, though uncomfortable, rarely require medical treatment. Their onset is often delayed for

pharmacotherapies for marijuana withdrawal or dependence. Motivational enhancement therapy and the development of coping skills, along with intensive relapse prevention therapy, are effective psychosocial interventions.

XXXII. Inhalants (9.48)

Treatment means, first, immediately remove the patient from exposure to the substance. Monitor the patient for potential adverse psychiatric conditions. The symptoms must be evaluated and treated. About two-thirds of inhalant abusers admitted for treatment reported use of other drugs, primarily alcohol and marijuana.

XXXIII. Behavioral Addiction Treatment (9.48-9.50)

Behavioral addictions are caused by genetic predispositions, environmental factors and pleasurable reinforcement just as drug addiction. They require the same intensity of intervention and treatment as substance-abuse disorders.

A. Gambling Disorder (9.48-9.50)

The DSM-5 describes problematic gambling as *gambling disorder*. The proliferation of gambling facilities has contributed to the increase of problem and pathological gamblers and to the incidents of relapse. Most gamblers are reluctant to seek treatment, thinking it's only "a cash-flow problem, not an addiction."

One treatment facility describes withdrawal symptoms similar to those of alcoholism, e.g., restlessness, irritability, anger, headaches, diarrhea, and especially craving to return to gambling.

Gamblers Anonymous, the most common treatment modality, parallels the 12-step program used by Alcoholics Anonymous.

One of the keys to treating compulsive gamblers is enabling them to overcome irrational thoughts (magical thinking) about their chances of winning. Gambling often coexists, replaces, or follows alcoholism, compulsive spending, and a few other disorders. Cognitive-behavioral approaches used to treat chemical dependencies and participation in GA are effective for gamblers. Another key is to help pathological gamblers to see that it's the action, not the money that is important to them. Current treatment is more psychosocial than pharmacological.

B. Eating Disorders (9.50-9.52)

Early intervention is key to effective treatment of all three eating disorders—*anorexia*, *bulimia*, and *binge eating*. Treatment includes the following:

- Diagnose and treatment of any medical complications.
- Encourage exercise, a balanced diet.
- Change false perceptions about one's body image and eating.
- Encourage participation in Overeaters Anonymous or other support groups.
- Use behavioral and group therapies to encourage weight gain in anorexics and weight loss in overeaters.
- Enhance self-esteem, independence, and identity.
- Treat and educate the client's family
-

1. Anorexia. Most severely ill anorexic patients must be hospitalized. It usually takes 10 to 12 weeks for full nutritional recovery. The complexities of anorexia require a team approach. One of the first barriers is convincing the patient that anorexia is potentially fatal.

2. Bulimia. Clients with bulimia usually have more long-term health problems than those with anorexia, often necessitating continuing medical care. The multidisciplinary treatment includes an internist, a nutritionist, a psychotherapist, and a psychopharmacologist. Family and group therapies are extremely useful.

3. Binge-Eating Disorder (includes compulsive overeating) has both physiological and psychological causes. Therapy examines underlying traumas and uses behavioral therapy, pharmacological treatment with antidepressants, and occasionally, surgical intervention. Self-help groups, such as OA, OA-HOW, and GraySheeters Anonymous have been proven effective.

4. Eating Disorders and Substance Abuse There is a link between those with an eating disorder and substance abuse problems. Common personality characteristics observed in both groups consist of secretiveness, ritualistic behaviors, obsession, social isolation, cravings, and a high tendency to relapse.

5. Pharmaceutical Treatments for Obesity. Many stimulants used as diet aids have an addictive component, creating more problems than they solve. Many substances work initially, but lose their effectiveness through prolonged use.

C. Sexual Addiction (9.52—9.53)

No formal criteria for sexual addiction have been established, but most clinicians use the following to make the diagnosis:

- continuing to engage in excessive sexual behavior despite negative consequences
- devoting excessive time to sexual activities
- frequently engaging in more sexual activities than intended
- escalating the scope or frequency of sexual activity.

Because many sexual aberrations stem from childhood sexual experiences, treatment must deal with childhood development in addition to the mechanics of the addiction. The treatment often includes behavior modification (e.g., aversion therapy), cognitive-behavioral therapy, group, family or couple therapy, psychodynamic psychotherapy, motivational interviewing, medications and Sexaholics Anonymous. The main issues addressed are the feelings of shame, guilt, anxiety, and depression that are associated with sexual addiction.

D. Electronic Addictions (Internet, gaming, cell phone) (9.53-9.54)

Because these addictions are so new, treatment personnel and treatment facilities are rare. Asian countries such as South Korea where in 2009 12.8% of its teens were reported to be addicted to the Internet. Researchers have proposed the following criteria for internet addiction:

- a preoccupation with the Internet (obsessing about activity, etc.)
- becoming restless, moody, depressed, or irritable when trying to cut back
- needing to use the Internet for increasing amounts of time
- repeated unsuccessful efforts to control use
- staying online longer than originally intended
- problems with relationships because of Internet use
- lying to family members or others to conceal extent of use

The traditional abstinence model is often impractical so a harm reduction model is usually necessary. Locating the computer in a different room, never going

people about your problem, etc. are all tactics that could help an addict.

TARGET POPULATIONS

Treatment that is tailored to specific groups based on gender, sexual orientation, age, ethnicity, and economic status is more effective than a "one size fits all" approach.

XXXIV. Men vs. Women (9.54)

Male treatment admissions outnumber female admissions by more than 2 to 1. Female substance abusers progress to addiction more rapidly than men, die at a younger age, and are less likely to ask for and/or receive help.

Men are often external attributers, blaming negative life events outside their control for their addiction; women are more often internal attributers, blaming problems on themselves. Treatment approaches that are supportive rather than confrontational result in better outcomes for women.

The greatest barriers to women seeking addiction are an inability to admit the problem, a lack of emotional support, and inadequate child care while in treatment.

XXXV. Youth (9.54-9.55)

Early onset drug use is the single best predictor of a future drug problem. The brain develops slowly from back to front cortices and is not fully mature until age 25, so an adolescent is less able to control impulsive and compulsive drug use.

Teens overestimate the true risks of drug use but they sometimes take that risk because their perception of the potential benefits outweighs their exaggerated perception of the risks involved.

Treatment should be molded around goals that are achievable within a short period and rewarded or reinforced immediately. Young people are less willing to accept guidance or intervention from adults and are more willing to listen to their peers. Normal adult programs do not work with young people. Specific youth-directed programs must be provided.

XXXVI. Older Americans (9.55-9.57)

Thirty-seven million Americans are 65 years or older. Most problems in this group result from the abuse of alcohol and/or prescription and OTC drugs. 80% of seniors treated for drug problems identified alcohol as their main drug. It is difficult for healthcare professionals to spot drug or alcohol abuse in this group.

A. Factors That Contribute to Elderly Drug Misuse and Abuse (9.56)

1. Illness exposes the elderly to more prescription drugs.
2. Physical resiliency declines with age.
3. Misconceptions on the part of physicians and the public, namely
 - seniors don't abuse drugs or alcohol
 - it's too late in life to address addiction
 - seniors have earned the right to abuse drugs
 - by 65 people are either too smart to abuse or are done with abuse of alcohol and/or drugs
4. Health professionals are not adequately trained to spot drug abuse.
5. There are age-related physiological changes that exaggerate the effects and toxicity of alcohol and other drugs such as decreased gastrointestinal acid secretion, less lean body mass and body water to dilute drugs, decreased

6. There is a lack of adequate social and support services for seniors
7. The community enables seniors to manage their own alcohol/drug problems and avoid medical detection and legal problems.

Also older Americans may view addiction as a character flaw rather than a disease, so they don't seek help for their substance problems.

B. Treatment of the Elderly Alcohol or Drug Abuser (9.56-9.57)

At present, few treatment programs aimed specifically at older Americans with a substance-abuse problem exist. These individuals are most successful in therapy groups with people their own age although mixed groups will work.

Withdrawal is more severe in the elderly, but detoxification can be managed safely.

XXXVII. Ethnic Groups (9.57-9.61)

One-third of the U.S. population is comprised of people of color. Treatment specifically targeted to ethnic and cultural groups promotes continued abstinence better than general treatment programs.

A. African American (9.57-9.58)

Non-Hispanic African Americans make up 20.9% of the admissions to publicly funded substance-abuse treatment facilities though they are only 12% of the population. Treatment intervention must address the following facts:

- 1. Higher Pain Threshold.** African Americans have a higher pain threshold, which leads to a greater tolerance for suffering and delays a call for help. This results in more-severe addiction and the development of other life problems. African-American women use crack at a greater rate than any other drug except alcohol. This leads to an alarming dissolution of supportive family structures;
- 2. Drugs as an Economic Resource.** Drugs are seen initially as an economic resource, not an economic drain;
- 3. Crime Leading to Chemical Dependency.** Crime leads to chemical dependency rather than addiction leading to crime;
- 4. Strong Sense of Boundaries** so that intervention is viewed as an inappropriate violation of one's space or turf.
- 5. Chemical Dependency: Primary or Secondary Problem** It's hard to determine if chemical dependency is a primary or secondary problem; drug users must understand that other issues can't be tackled successfully without tackling recovery first;
- 6. Conspiracy Theory.** The belief that the rapid spread of crack (and AIDS) in the African-American community is deliberate genocide is widely held among Blacks.
- 7. Revelations.** Revelations are widespread in the African-American community; organized spirituality is fundamental to promoting recovery.

B. Hispanic (9.58-9.59) In 2010, the U.S. Census Bureau estimated that 47.8

In 2008, 258,000 (13.8%) of all those in substance-abuse treatment in the United States were of Hispanic origin. There is cultural diversity and differences as well as the similarities in the US hispanic population. Programs must be flexible, have bilingual and bicultural staff, and be prepared to treat the whole family because family is so significant in Hispanic cultures. The core aspects of Hispanic cultures are dignidad, respeto y carino—dignity, respect and love.

A. Asian and Pacific Islander (9.59-9.60)

Asian and Pacific Islander (API) represent a variety of cultures with these characteristics:

- distinct and separate ethnic groups and languages (e.g., Chinese, Japanese, Korean, Filipino, Cambodian, and Vietnamese);
- many languages
- different religions
- a variety of strong cultural characteristics
- distinctive cultures and languages among immigrants from the same country
- varying levels of acculturation.

Similarities include the fact that many reside along the Pacific Rim, they have a strong regard for family, a high respect for education, a reluctance to discuss personal issues, reservations about boasting, a reluctance to discuss health issues or death. They respond more to credentialed professionals than to peer counselors and prefer individual counseling to group counseling, and they have a greater reliance on themselves to handle their addiction rather than a higher power or external control.

A sense of family shame keeps the family enabling and rescuing the addict repeatedly rather than insisting he/she get into treatment. Unless treatment involve families, the odds of success are low.

1. Available Programs (9.60)

There is a lack of available culturally consistent programs for API substance abuse treatment. The most commonly used drugs in API communities vary:

- Chinese—tobacco and alcohol;
- Japanese—alcohol, marijuana, tobacco, crack cocaine, and methamphetamine;
- Korean—alcohol (whiskey and rice wine) and crack cocaine.
- Filipino—alcohol, marijuana, and cocaine
- Vietnamese—tobacco, marijuana, and alcohol
- Cambodians—alcohol, tobacco, crack cocaine, and smokable methamphetamine.

D. American Indian and Alaskan Native (9.60-9.61)

Most American Indians live in 27 states, over half live in Arizona. Overall 63.8% of American Indian/Alaskan Native treatment admissions were for alcohol compared with 40.3% for the general population

Bicultural and bilingual treatment personnel greatly increase the chances of successful treatment. Clinicians who are brought in to a reservation from the outside have trouble understanding the traditions, so they rely more on standard psychosocial therapy, which is not as effective and breeds distrust.

XXXVIII. Other Groups (9.61-9.62)

Regardless of the group (homeless, gay, mentally or physically challenged)

groups

A. Physically Disabled (9.61-9.62)

Counselors can over-focus on a person's physical disability and miss signs and symptoms of relapse or focus too strongly on the person's addiction and not take into account the extra stress caused by the disability. Physical disabilities often involve pain creating a potential for abuse of prescription medications.

B. Lesbian, Gay, Bisexual, and Transgender (9.62)

Research on substance abuse in the LGBT communities has not been exhaustive, merely suggestive. The social life of many in these groups takes place in bars or other places/events (circuit parties, for example) that promote drug and alcohol use. In any population the roots of all addiction can be found in genetics tempered by childhood stresses. Societal homophobia or physical, emotional, or sexual abuse are specific stressors experienced by the LGBT community. Identifying the client's "family" and involving them in treatment can be difficult. Often social contact and events in the LGBT community are an important way to cope with homophobia and isolation. Treatment programs such as the Matrix Model or inpatient programs that focus on meth and specific communities prove that meth treatment is effective for this community.

TREATMENT OBSTACLES

Denial and lack of financial or treatment resources constitute the biggest obstacles to addiction treatment.

XXXIX. Developmental Arrest and Cognitive Impairments (9.62-9.63)

The use of psychoactive drugs can delay users' emotional development and keep them from learning how to deal with life's problems. Damage to brain functioning often results in cognitive deficits, especially during the first several months of abstinence and recovery. 30% to 80% of substance abusers' have mild to severe cognitive impairments. It is often necessary to modify existing treatment protocols to the cognitive abilities of the client. Difficult and/or abstract concepts should be presented later in treatment when cognitive processing has improved. Three to six months of continuous abstinence is associated with the return of many, but not all, cognitive abilities. Goal setting, planning, sustained attention, response inhibition, problem solving and decision-making skills need to be developed.

XL. Follow-Through (Monitoring) (9.63)

Early program dropout or lack of compliance to the treatment protocol is clear indication of poor treatment outcomes. Client confidentiality, vital to the addiction treatment process, has also contributed to the problem of poor treatment compliance, since some clients can be noncompliant with treatment protocols without the knowledge of their families, employers, or friends until more harm is caused by their continued addiction. More and more professional boards (medical, nursing, legal) mandate the release of confidentiality as a condition of retaining a license when addicts who are professionals are mandated into treatment after their addiction has been discovered.

XLI. Conflicting Goals (9.63-9.64)

An individual addict's treatment goal may conflict with a program's goal.

the costs of addiction).

The problems of conflicting goals are best managed by the development of clear program objectives and goals, better assessment and matching of clients to programs.

XLII. Treatment Resources (9.64)

The biggest obstacle continues to be lack of treatment resources. For every 100 people put on waiting lists, 66% will never make it into treatment. Any delay in accessing treatment results in a loss of motivation.

MEDICAL INTERVENTION DEVELOPMENTS

XLIII. Introduction (9.64)

Drug replacement therapies, medical pharmacotherapy, chemically assisted detoxification, etc. are looked at as unorthodox by many treatment clinicians and recovering addicts who believe that the use of any potentially addictive psychoactive drug will result in relapse. Advances in the understanding of the neuropharmacology of addiction during the 1990s, (The Decade of the Mind) led to a flood of medications targeted to treat chemical dependencies.

XLIV. Medications Approved To Treat Substance-Use Disorders vs. Those Used Off-Label (9.64-9.65)

A. For Alcohol Use Disorder (9.64)

Approved:

- Disulfiram (Antabuse®) Aversive consequences (flushing, nausea, vomiting, dizziness, and rapid heartbeat) occur immediately, discouraging further use of alcohol in the recovering alcoholic.
- Naltrexone (ReVia®) disrupts activation of the reward/reinforcement pathway of the brain to diminish craving.
- Acamprosate (Campral®) is thought to stabilize receptors to moderate the craving response.
- Naltrexone injectable suspension (Vivitrol®) received FDA approval for treatment of alcohol craving in 2005.
- Chlordiazepoxide (Librium) was approved for the treatment of acute alcoholism withdrawal symptoms.

Off-label - medications used in treatment but not FDA approved for this medication.

- Clonidine (Catapres)
- antiseizure medications
- baclofen
- the opioid antagonist nalmefene.

B. For Nicotine Use Disorder (9.65)

Approved

- Varenicline (Chantix®) blocks nicotine's activation of the receptors, which slows the release of dopamine to decrease craving.
- Bupropion or amfebutamone (Zyban® or Wellbutrin®) the first oral pills to treat nicotine craving.
- Nicotine products, e.g., Nicorette® gum is available O-T-C for nicotine replacement therapy delivery systems. Others include transdermal patches, sprav. inhalers and lozenges.

- Nortriptyline and clonidine

C. For Opiate/Opioid Use Disorder (9.65)

Approved

- Buprenorphine (Suboxone® and Subutex®)
- Naltrexone (ReVia® and Trexan®)
- LAAM
- Methadone is used for detoxification and replacement therapy of heroin addiction as a harm reduction strategy.

Off Label

- Clonidine and lofexidine

D. For Stimulant Drug Disorder (9.65)

Abuse of stimulant drugs disrupts the same brain neurotransmitters that are imbalanced in depression and thought disorders. No medications are currently approved for stimulant use disorders.

Off Label

- antidepressants (e.g. SSRIs, tricyclics and bupropion)
- Antipsychotic neuroleptics (e.g. Risperdal,® and olanzapine)
- Sedatives (e.g. buspirone and lorazepam)
- disulfiram
- antiseizure medications (e.g. carbamazepine and topiramate)
- Naltrexone
- Selegiline
- Miscellaneous medications (calcium channel blockers, bromocriptine, et al.)

E. For Sedative-Hypnotic Disorder (9.65)

Off-Label

Though no medications have been FDA approved specifically to treat this condition, many drugs approved to treat seizure disorders (e.g., phenobarbital, various benzodiazepines, phenytoin, carbamazepine, and gabapentin) are currently used effectively to treat sedative-hypnotic drug dependence.

F. For Marijuana Use Disorder (9.65)

For the first time a full range of marijuana withdrawal symptoms were included in the *DSM-5*, and the inclusion validated various medications used to mitigate those symptoms:

Off-Label

- Bupropion
- Divalproex
- Nefazodone
- Kynurenic acid

XLV. Medical Strategies in Development to Treat SUD's (9.66-9.68)

A. Rapid Opioid Detoxification (9.66)

This sometimes-dangerous strategy uses various medications to manage opioid withdrawal symptoms in combination with naloxone or naltrexone, opioid antagonists that force the rapid onset of the abstinence syndrome. Detoxification is alleged to occur within six to eight hours. Opioid addicts are quickly able to

Medications used to alleviate the naloxone/naltrexone-forced onset of opioid withdrawal include:

- clonidine
- midazolam
- lorazepam or midazolam combined with clonidine

B. Replacement of Agonist Effects (9.66)

Positive results from methadone maintenance have stimulated the search for other replacement or agonist therapies. Methylphenidate and pemoline for cocaine and stimulant dependence and SSRI antidepressants and GHB for alcohol and sedative-hypnotic addiction are being tried.

C. Antagonist (blocking) Medications or Vaccines (9.66)

While taking these types of agents, addicts are unable to experience the effects of an abused drug should they have a slip.

D. Mixed Agonist-Antagonist (9.66-9.67)

The agonist part of this approach prevents withdrawal, while the antagonist effects prevent craving by blocking any further drug use, e.g., buprenorphine and buprenorphine in opioid addiction.

E. Anticraving and Anticued Craving (9.67)

Medications that can curb endogenous or environmentally cued craving responses are dramatic developments in treatment, e.g.,

- baclofen, a nonopioid muscle relaxant, also exhibits alcohol anticraving effects;
- topiramate and other antiseizure medications appear to block craving for alcohol and other drugs;
- mecamylamine appears to block environmentally cued craving of cocaine;
- bupropion, approved for the treatment of nicotine craving.

F. Metabolism Modulation (9.67)

Medications like disulfiram (Antabuse®) can alter the metabolism of an abused drug to render it ineffective or cause noxious reactions.

G. Restoration of Homeostasis (9.67)

Medications and nutrients that restore brain chemical balances are theorized to restore homeostasis, mitigating the need for drug use.

H. Amino Acid Precursor Loading (9.67)

This strategy administers protein supplements (e.g., tyrosine, taurine) to addicts in an effort to increase the brain's production of its neurochemicals to restore homeostasis.

I. Modulation of Drug Effects and Antipriming (9.67-9.68)

A recent development is the use of medications that can modulate or blunt the pleasure-reinforcing effects of addictive drugs.

Calcium channel-blocking medications prevent calcium ions from entering brain cells, blocking the release of dopamine

Sodium ion channel blockers, e.g. riluzole, phenytoin, and lamotrigine interfere with neuron transmission by blocking the cells' uptake of sodium and enhance the effects of GABA.

J. Drugs with Unknown Strategies (9.68)

Psychedelic drugs like ibogaine and ketamine are effective in treating cocaine and opioid addiction even though the early use of ibogaine to treat opioid addiction resulted in some fatalities. Other drugs that are being studied are dextromethorphan to treat opioid addiction, cycloserine, an antibiotic, to decrease opioid abuse, topiramate to limit alcohol abuse, and many others

K. Other Strategies (9.68)

Patented medical protocols. Prometa® employs FDA-approved medications (though not approved for addiction) in a rigid short-term protocol to abate drug hunger and promote recovery.

Packaged clinical protocols to treat addiction are copyrighted and sold to treatment providers to help facilitate clinical interventions and promote better outcomes. An example of this is the Matrix Model for cocaine, methamphetamine, and other stimulant drug addictions.

XLVI. The New Drug Development Process (9.68-9.69)

The FDA has established a structured, evidence-based process for new drug approval.

1. Step 1: Preclinical Research and Development

This covers initial chemical development, animal studies and projected abuse liability. If the results indicate the drug is useful and marketable, the drug's sponsor applies for a new drug number that permits research on humans.

2. Step 2: Clinical Trials

- Phase 1: Initial Clinical Stage. A small number of human subjects establish safety, dosage, range for effective treatment, and side effects.
- Phase II: Clinical Pharmacological Evaluation Stage. Double-blind studies are used to evaluate the effects, side effects, and gauge effectiveness.
- Phase III: Extended Clinical Evaluation. A large number of researchers and patients test the drug's effectiveness, safety, dosage, and side effects.

3. Step 3: Permission to Market

If the drug successfully completes steps 1 and 2, the FDA allows it to be marketed under its patented name. The process from step 1 to step 3 usually takes up to 12 years to complete. After the drug is marketed, the FDA continues to monitor it.

Classroom or Small Group Discussion Topics

1. Research has documented that for every dollar spent on treating addictions the cost savings to society is between \$0.33 and \$39. Given this fact why isn't there more federal and state money appropriated for treatment programs?

2. Break the class into small groups (3 to 5 students) and ask them to discuss "what they would say or do in the following scenarios?" After each member of the group has had an opportunity to provide input, have each group report the range of responses participants had to item 2.a. and 2.b.

a. You were given prescription painkillers by your dentist after surgery. One day later, the pills are missing from your medicine cabinet.

b. Your roommate regularly drinks a six-pack on Fridays and Saturdays. You notice that he or she begins drinking a six-pack during the week on Mondays and Wednesdays.

c. Imagine that you are the parent of a 16 year old and you found a marijuana joint in your child's room. How would respond?

d. Imagine that you are the parent of a 16 year old and your child came home with alcohol on his breath and staggering. How would respond?

3. What are the implications of the claim that "addiction is not cured only arrested" in terms of a substance abuser's ability to accept long-term recovery?

4. What are the advantages and disadvantages of allowing a person to "hit bottom" before initiating treatment?

5. What are the scientific reasons to support the use of replacement therapy or drug-substitution therapies (methadone for heroin)? There is a point of view among some that the use of this type of drug-substitution avoids the core addiction problem and just perpetuates drug-using behaviors. What are your views on the opposition to using drug-substitution therapy?

6. Which drug do your students believe poses the greatest challenge for recovery? Why?

Critical Thinking and Class Exercises

1. Discuss the differences between the diseases of addiction, diabetes, and cancer. Have the students debate whether they think addiction is truly a disease.
2. Ask two students to improvise in front of the class using various words or actions for the following scenarios. (One student develops denial statements; the other student counters the denial statements.)
 - a. Your high-school age brother is going out more often during the week, coming home smelling of alcohol, and is absent more often from school because of illness caused by the drinking. In addition, his grades are declining.
 - b. Your father came home drunk again and hit your sister because she didn't do her homework. You talk to your mother but she says not to interfere.
 - c. Your roommate comes in late and drunk during the week, wakes you up to talk, and twice has vomited on the floor.
3. Have a group of five or six students dramatize an intervention. One student acts as the intervention leader, one acts as the addict and the others take on roles of friends, financial advisors, family members, and coworkers.
Also do this as a family intervention for a parent - designate one student for each of the following roles: the other parent, the model child, the problem child, the lost child, and the mascot child or family clown.
4. Ask students to place the 12 steps of AA in order (Write them in random order on a board, slips of paper etc.) Ask them to discuss specifically how the concept of powerlessness could keep some from seeking recovery.
5. What specific cultural factors and practices should be taken into account for each of the following groups?
 - African Americans
 - Asian Americans
 - Hispanics
 - Native Americans
 - Women
 - Athletes
 - Healthcare professionals
 - Lesbian, bisexual, gay or transgendered