Module 3: Treatment of Substance Use Disorders

Duration: *90 minutes*

Goal:

- To provide instruction specifying methods for identification of substance abuse and subsequent treatment options.

Objectives:

Following this module the participant will be able to:

- Identify a substance use disorder.
- Engage an individual in a discussion of the substance abuse and dependence problems.
- Identify potential referral sites for individuals with a substance dependance or substance abuse problem.

Teaching Activities

Identifying the individual with a substance use disorder	25 minutes
Confronting or intervening with the individual with the substance use disorder	40 minutes
Referral and follow-up with the individual with substance use disorder	20 minutes
Summary	5 minutes

Teaching Format

This training will incorporate a lecture format and small group work. Screening techniques will be presented by the instructor.

Suggested Literature

Kaufman, E. (1996). Diagnosis and treatment of drug and alcohol abuse in women. American Journal of Obstetrics and Gynecology, 1, 21-27.

Lowinson, J. H., Ruiz, E., & Millam, R. B. (Eds.). (1992). Substance abuse: A comprehensive textbook (2nd ed.). Baltimore, MD: Williams and Wilkins Publishers.

Mendelson, J. H., & Mello, N. K. (1992). Medical diagnosis and treatment of alcoholism. New York: McGraw Hill.

Schuckit, M. A. (1994). Goals of treatment. In M. Galanter & H. Kleber (Eds.), The American psychiatric press textbook of substance abuse treatment (pp. 3-10). Washington, DC: American Psychiatric Press.

Schuckit, M. A. (1995). Drug and alcohol abuse: A clinical guide to diagnosis and treatment (4th ed.). New York: Plenum.

Schuckit, M. A. (1995). Educating yourself about alcohol and drugs. New York: Plenum.

Schuckit, M. A. (1996). Recent developments in the pharmacotherapy of alcohol dependence. Journal of Consulting and Clinical Psychology, 64, 669-676.

Schuckit, M. A. (1997). Susbstance use disorders. Submitted to the British Medical Journal, 314, 1605-1608.

Volpicelli, J. R., Alterman, A. I., Hayashida, M., & O’Brien, C. P. (1992). Naltrexone in the treatment of alcohol dependence. Archives of General Psychiatry, 4 , 876-880.

Teaching Outline
Module 3: Treatment of Substance Use Disorders

Note to Instructors:
Before starting to teach you may want to review the goals and objectives of this module.

I. *Introduction*

To fully appreciate the information presented in this lecture, participants should already be conversant with how to place drugs of abuse into categories (based on the usual effects at the usual doses), and have knowledge about the appropriate diagnostic criteria for abuse, dependence, and substance-induced disorders.

Present the following information to the class.

A. It is important to note that the substance use disorders are among the most prevalent psychiatric disorders.

B. According to the Epidemiological Catchment Area (ECA) Study, an epidemiological study based on the United States Population:

- 13.5% of respondents experienced an alcohol use disorder at some time in their lives
- 6.1% experienced other drug use disorders
- lifetime prevalence for any psychiatric disorder was 44% among individuals with an alcohol disorder and 64.4% among individuals with other drug-use disorders

(Regier et.al. (1990). Comorbidity of mental disorders with alcohol and other drug abuse. Journal of the American Medical Association, 264, 2511-2518.)

C. More recently, the National Co-morbidity Study (NCS) administered psychiatric interviews to more than 8,000 respondents, ages 15 to 54. NCS findings include:

- higher lifetime prevalence rates than ECA (48%) for any or all psychiatric interviews

- most mental disorders more common among individuals with a current or lifetime AOD diagnosis than among those who never experienced AOD problems

  (Kessler, R.C., Nelson, C.B., McGonagle, K.A., Edlund, M.J., Frank, R.J., & Leaf, P.J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. American Journal of Orthopsychiatry, 66, 17-31).

D. The lifetime risk for alcohol abuse or dependence is:

- approximately 15% in men
- 5% to 8% in women

E. The risk for abuse or dependence on drugs other than alcohol approaches 6% or so in the general population

F. Dependence on alcohol or other drugs has a probable lifetime risk:

- approximately 10% for men
- approximately 5% for women

G. With what we know about the complicating factor of alcohol in so many major medical problems, it is important to stress the need for consistent screening for substance use problems.

II. *Identifying the Individual with a Substance use Disorder*

OHD/Slide 3.1 on screen.

Refer to HO3.1.

A. The first step in learning how to identify patients with substance use problems is to recognize how prevalent these disorders are.

1. According to estimates based on 1996 National Household Survey on Drug Abuse:

   - 13 million Americans report current use of illicit drugs (in the past month)
   - in 1996, rates of current illicit drug use in the past month among males was 8.1%. 4.2% among females

B. The relationship to substance use and the need for medical services is well documented.

1. In primary care settings it is estimated that:

    - between 20-35% of medical-surgical patients in inpatient settings and 10- 20% of patients in outpatient settings, have problems with alcohol

    - alcohol use is involved in cases of medical morbidity and mortality associated with cirrhosis of the liver, pancreatitis, and cancer of upper airway, esophagus, and liver

2. Individuals utilizing the services of the Health Care Industry are, and should be considered, ideal candidates for screening for substance use patterns.

3. Research through the Centers for Disease Control and Prevention (CDCP) show a high rate of substance abuse and dependence associated with individuals accessing the Emergency Departments (ED) of hospitals.

4. Current investigations are assessing the benefit of early screening methods as a consistent component of all interviews conducted by ED personnel.

5. Next is to alleviate of the erroneous stereotype that alcohol and drug dependent people are street urchins, homeless, or always present with obvious symptoms of intoxication or withdrawal.

6. On the contrary, the average alcohol or drug dependent person is a relatively functional blue- or white collar man or woman.

7. Armed with a high level of awareness of these highly prevalent disorders, and the recognition of the potential applicability of these diagnoses to any patient, the next step is to review with each and every patient the pattern of his or her life problems.

8. Thus, no matter what problem the patient presents with, one can focus on job, interpersonal, health (including accidents), legal, and other types of areas of life interference, attempting to determine whether substances might have contributed to the difficulties.

9. The single best and preferred approach is to talk with your patients and gather an adequate history of life problems and how substances tie into this. This approach is preferable to asking individuals whether they “drink a lot” or “take a lot of drugs.”

10. Several additional screening instruments for substance use disorders might be

helpful. However, these do **not** diagnose alcohol dependence, but can identify those with a high probability of alcohol problems and can offer a starting point for discussion.

11. When psychological, social or physical problems are observed and they might have developed in the context of substance use, then a full review of DSM-IV abuse and dependence criteria, noting the age of onset for each item, is appropriate.

12. When the patient does not offer enough direct information to make a diagnosis, but the clinician suspects a substance use disorder might exist, it is important to ask for permission to briefly interview (by telephone if necessary) a close friend or family member about the patient's history.

Refer again to HO 3.1.

13. For the diagnosis of alcohol abuse or dependence, a number of blood tests can be helpful.

14. If an individual is drinking approximately four or more drinks a day (a drink equals 4 oz of wine, 12 oz of beer, or a shot (1.5 oz) of 80 proof beverages), and if this continues for four or five days or more, some blood tests are likely to change.

15. Because these tests are related to the state of recent alcohol intake, they are called "state markers" of heavy drinking.

16. Relevant blood tests for evaluation include GGT, MCV, uric acid, and the usual liver function tests.

17. High-Normal or abnormal values in any of these tests indicate the necessity of closely reviewing the history for potential evidence of alcohol dependence or abuse.

18. For drugs other than alcohol, a urine toxicology screen can be helpful, although it is not diagnostic of problems.

19. For short half-life drugs such as lorazepan (Ativan) or heroin, toxicology screens only stay positive for a day or so.

20. For long half-life drugs (such as methadone or diazepan) toxicology screens can stay positive for a week or so.

21. Cannabinols can be picked up in the urine for three days to perhaps two weeks after last use.
22. Amphetamines and cocaine can sometimes be observed in the urine for three

days or so after last use.

C. Other Screening Instruments

OHD/Slide 3.2 on screen.

Refer to HO3.2.

1. Simple paper and pencil tests can be helpful in screening, but are not diagnostic. For example, the Michigan Alcoholism Screening Test (MAST), a twenty-five item self administered questionaire, can be used for self-reporting of alcohol (and perhaps drug) problems.

2. However, this is not diagnostic of abuse or dependence and can only be used as an initial screen to be followed by an appropriate in-depth history.

OHD 3.3 on screen.

3. Another approach, one that is a bit shorter, is the CAGE-AID.

4. The CAGE-AID is administered verbally during the course of an interview.

5. The name CAGE is an acronym of the main points in the four questions and AID signifies **A**dapted to **I**nclude **D**rugs.

6. The four questions of the CAGE-AID are:

   - Have you felt you ought to **C**ut down on your drinking or drug use?
   - Have people **A**nnoyed you by criticizing your drinking or drug use?
   - Have you ever felt bad or **G**uilty about your drinking or drug use?
   - Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover (**E**ye-opener)?

   (Brown, R.L., & Rounds, L. A. (1995). Conjoint screening questionnaires for alcohol and other drug abuse: Criterion validity in a primary care practice. Wisconsin Medical Journal, 94, 135-140)

D. Exercise: (To be developed by instructor).

Divide participants into triads. Distribute the handout with the ***Presenting Problem.*** *Provide the following instructions.*

1. Each of you will have the opportunity to practice the administration of the CAGE-AID.

2. In your triads, one person will be the clinician, one the patient, and one the observer.

3. The clinician will interview the patient for about five minutes.

4. The patient will present for a problem which is on a sheet being distributed.

5. During the course of the interview the clinician will inquire about potential substance use disorders using the CAGE-AID.

III. ***Approaches for Sharing the Diagnosis with the Patient (Confrontation or Intervention)***

OHD/Slide 3.4 on screen.

Refer to HO3.3.

A. There is no single best way to inform a patient that he or she has a substance use disorder.

B. One approach is to use the initial concern of the patient (e.g., sleeping problems, anxiety, high blood pressure, etc.) and point out how alcohol or drugs might be contributing to or causing this difficulty.

C. The next useful step is to share with the patient the pattern of physical findings and laboratory test results to demonstrate that there is evidence of some impairment affecting his or her life and body.

D. The labels of abuse or dependence might be best initially approached indirectly by telling the patient that he or she appears to have reached a pointwhere substance use is causing a great deal of problems.

E. It is useful to remind the patient that he or she is responsible for his or her own actions, and that it is not the role of the physician to force the patient to do anything.

F. However, as the person's physician, you have a great deal of concern and, would like to broach the need for complete abstinence from substances.

G. Confrontations or interventions such as this often require many repetitions before an individual actually changes his or her lifestyle.

H. A rejection of the need for abstinence at the initial confrontation can still serve as the basis for the next intervention, when the next physical examination occurs or the next crisis develops.

I. Some clinicians have recommended a concerted effort of family and friends to carry out a constructive intervention with the individual so that he or she might enter treatment immediately.

J. While this approach can be successful, it does have potential liabilities (e.g., alienating the person with the problems from his or her sources of social support).

IV. *Detoxification*

OHD/Slide 3.5 on screen.

A. Detoxification procedures to avoid or treat an abstinence or withdrawal syndrome can be appropriate for individuals dependent on depressants, stimulants, or opiates.

B. Because of their importance, these procedures are discussed in a separate lecture in this series.

C. At this time we want to acknowledge the process and emphasize the importance of knowledge in this area is for each of you.

V. *General Approach to Rehabilitation for Substance-Use Disorders*

A. This step assumes that a diagnosis of dependence (or perhaps abuse) has been established.

B. It is also assumed that major medical or independent psychiatric syndromes are being addressed.

C. The comments that follow are also based on the assumption that, if required, detoxification procedures have already been carried out.

1. The prognosis for at least one year of abstinence appears to be as high as 70% for alcohol dependent individuals who do not suffer from antisocial personality disorder, and who have agreed to enter treatment and do stay with the therapeutic efforts through the initial intense phase.

2. One year rates of abstinence are fair predictors of further abstinence in the future.

3. Rates of abstinence are lower for individuals dependent on stimulants or opiates, owing more to a difference in drug-specific culture and motivation for use.

OHD/Slide 3.6 on screen.

Refer to OH3.4.

The instructor may want to recommend students read - Schuckit, M. A. (1995). Educating Yourself About Alcohol and Drugs. New York: Plenum.

D. In establishing a treatment approach, there are a number of useful guidelines.

1. It is important to justify any actions you take in delivering treatment through evidence that their assets are greater than their liabilities.

2. This requires that all major treatment efforts in the substance use disorders should have been validated by controlled trials in the literature.

3. It is important to guard against overzealous acceptance of new treatments without adequate data.

4. Establish realistic goals:

   - based on the highest level of functioning prior to the onset of substance use disorders
   - in some cases, including those where alcohol has caused irreversible damage to the CNS, the person will not be able to return to pre-substance dependence levels of functioning.

5. Share these goals with each patient.

6. It is important that both the treatment staff and the patient recognize that changing the lifestyle from one centered around substance use to one without substances requires a long-term commitment on the part of the individual with the substance use disorder.

7. The initial intensive phase of treatment will last for a period of several weeks to a month, and must be followed by aftercare and self-help group efforts for at least twelve months or more.

8. Do not take final responsibility for the patient's actions.

9. It is his or her job to work through recovery with your help.

10. Use all available resources to help patients optimize their levels of functioning.

11. This includes reaching out to family members, encouraging participation in social groups, encouraging the use of self-help groups, encouraging the incorporation of strengths such as religion when appropriate, and so on.

12. Be certain to attempt to match the specific goals of the patient with the specific treatments being offered.

VI. *General Goals of Treatment Programs*

A. Rehabilitation efforts in diverse areas of the world and focusing on any of a wide variety of drugs all share the following goals:

OHD/Slide 3.7 on screen.

Refer to HO3.5.

1. Attempts are made to optimize levels of physical functioning through:

    - careful physical examination
    - appropriate detoxification procedures when needed
    - efforts to reverse physical pathology.

OHD/Slide 3.8 on screen.

2. Steps are incorporated to optimize the patient’s commitment to abstinence.

3. There is no evidence that for individuals meeting criteria for dependence, long-term controlled use of substances works

    - There is a very high rate of reversal to severe dependence in such situations.
    - Motivation is a state of readiness or eagerness to change.
    - Efforts that maximize motivation for abstinence include:
        - Lectures regarding the future dangers of continued use of substances and the potential benefits of abstinence.
        - Discussion groups with patients emphasizing problems that have occurred regarding substance use in the past, and the manner in which desired goals can be obtained with abstinence in the future.

- Discussion groups and lectures with family members to offer the same information.
  * This also decreases the chance that family members will feel as if they are being inappropriately blamed for the problems of the patient.

- Using counselors who are themselves recovering from a substance use disorder (after a year or two of abstinence) offers a potential model of recovery demonstrating "if they can do it so can I."

- Self-help groups such as Alcoholics Anonymous, Cocaine Anonymous, Narcotics Anonymous, and so on all help accomplish each of the above-mentioned goals.
  * These self-help groups also have parallel meetings for adult relatives and friends (e.g., Al-Anon) and for teenagers related to the patient in treatment (e.g., Al-Ateen).

The lecturer might choose to expand upon each of these items, offering clinical examples. However, recognizing that this lecture can only be carried out for 90 minutes, it might be necessary to offer this additional information through readings.

OHD/Slide 3.9 on screen.

Refer to HO3.6.

4. Efforts to help the individual rebuild his or her life without substances. This involves:

   - Admitting to the patient that substances have been a very important part of his or her life and are very difficult to give up.

   - Using lectures and discussion groups to talk about issues likely to arise that will require some life changes in order to optimize the chance for continued abstinence.
     Topics include:
     - the appropriate use of free time
     - how to interact with relatives and friends now that you are sober
     - how to appropriately interact with or avoid substance-using friends
     - how to say no to substances when offered (refusal skills)

The instructor is encouraged to use clinical examples.

After a couple of examples continue with ***Goals of Treatment Facilities.***

5. Relapse prevention efforts are an important part of treatment facilities.

6. Efforts directed at relapse prevention begin as soon as abstinence is achieved.

OHD/Slide 3.10 on screen.

7. Discussion groups and lectures are used to help the individual plan for functioning during and after the most intensive phase of rehabilitation.

8. Topics to be covered in relapse prevention include:

   - the likelihood of minor relapses (slips)
   - how to handle a relapse/slip if it occurs
   - how to avoid situations in which substance use is likely
   - how to identify emotional conditions or feelings that might increase the likelihood of returning to substance use

At this point we have reviewed:

- *how to identify and confront patients with substance use disorder*
- *given a few thoughts on detoxification*
- *offered an outline of the key elements of rehabilitation*

The next section amplifies some specific aspects of rehabilitation.

VII. ***Helping Patients Select an Appropriate Rehabilitation Program***

A. Much of the "selection" is now in the hands of HMO administrators and insurance company employees.

OHD/Slide 3.11 on screen.

B. Inpatient rehabilitation appears to be most appropriate for individuals who have either repeatedly failed in outpatient treatments or who suffer from severe enough medical or psychiatric problems (including substance-induced temporary disorders) that outpatient treatment appears to be impossible to implement.

C. There is some evidence that inpatient rehabilitation has some advantages.

Ask participants to
Name some advantages of inpatient programs.

Allow a few responses.

Ask participants to
Name a few advantages of outpatient programs.

D. It is not obvious that inpatient approaches are required for everyone.

E. Most inpatient and outpatient programs incorporate the generic approaches described in our review of **General Goals of Treatment Programs**.

VII. *The Role of Medications in Rehabilitation*

A. The essential elements in rehabilitation for substance use disorders include:

- education
- efforts to contribute to some cognitive changes
- aspects of behavioral approaches

B. Once detoxification is complete there are few medications that have been proven through double-blind controlled trials to add significantly to rehabilitation efforts.

OHD/Slide 3.12 on screen.

Refer to HO3.7.

C. Alcohol

No medications are routinely appropriate for the rehabilitation of individuals with alcohol dependence, although clinicians should be aware of the following:

1. Disulfiram (Antabuse)

The lecturer is encouraged to briefly describe how this medication works.

- Large double-blind controlled trials do not demonstrate an effectiveness that is significantly greater than placebo

- There might be subgroups of patients for whom Antabuse is appropriate.

It is also important that the student be introduced to the dangers of the ethanol-disulfiram interaction.

- Interaction of Disulfiram in individuals with serious preexisting medical conditions like heart disease or diabetes can be problematic.

- The potential side effects of this drug that can occur even in the absence of alcohol are considered risky and should be noted.
  - severe neuropathies
  - potentially lethal hepatitis
  - the possibility of severe depressions or psychoses

2. Antidepressants

   - Double-blind controlled trials do not indicate that depressive-symptoma tology or abstinence is significantly improved with antidepressants, unless an alcohol dependent individual has evidence of an independent major depressive disorder as described in the prior lecture.

3. Lithium

   - Similarly, there are no data from double-blind controlled trials indicating that lithium is any better than placebo for alcohol dependent individuals unless there is evidence of independent manic-depressive disease.

4. Naltrexone (Trexan)

   - There are some preliminary data from two studies indicating that patients taking Trexan might be less likely than those on placebo to relapse to heavy drinking after a slip (i.e., a minor relapse).

   - More data will be required before this medication is used on a routine basis.

Refer to HO3.8.

5. Serotonin re-uptake inhibitors

   - These drugs, including fluoxetine (Prozac), have been shown in animal studies and studies of normal human subjects to decrease alcohol intake by perhaps 10% to 20%.

   - However, the effectiveness of such approaches in actual alcohol dependent individuals has not been proven and the dangers of anti-depressant/alcohol interactions are considerable.

6. Acamprosate (calcium acetylhomotaurinate)

   - Chemical structure similar to the amino acids taurine and gamma aminobutyric acid (GABA).
     - Stimulates the inhibitory actions of GABA on neuronal transmission.
     - Antagonizes the excitatory effects of glutamate.

   - During the course of a one year study subjects on acamprosate did better than subjects on placebo with 18.3% on acamprosate staying totally abstinent vs. 7.1% of those on the placebo.

   - Acamprosate represents a new class of pharmacological agents for alcohol dependence.

OHD/Slide 3.13 on screen.

B. <u>Stimulants</u>

1. No medications have been demonstrated to be routinely useful in the rehabilitation of stimulant dependent individuals (e.g. those dependent on amphetamines or cocaine).

2. While preliminary data indicated the potential usefulness of antidepressant medications and dopamine-boosting drugs such as bromocriptine (Parlodel), double-blind controlled trials have not yielded promising results.

OHD/Slide 3.14 on screen.

C. <u>Opiates</u>

1. Both methadone and naltrexone (Trexan) appear to be potentially useful in the rehabilitation of opiate dependent individuals.

2. Neither of these pharmacological treatments is appropriate in the absence of a full rehabilitation effort including increasing motivation for abstinence from street drugs and helping individuals readjust to life without substances.

3. Methadone substitutes an oral, once per day, relatively low side effect opiate addiction for an IV-based, every four hours, high levels of cognitive effects street drug (heroin).

4. Thus, patients are not "cured" of opiate dependence, but their physical addiction is switched to a safer drug.

5. When doses of 50 to 100 mg of methadone per day are used, there is evidence of a decrease in IV street drug use, a decrease in crime, and an increased ability to function at work and in a family setting.

6. These benefits are most often observed for individuals who were relatively stable in their life functioning before their dependence on opiates began.

7. Thus, one can certainly expect less improved life functioning (although still expect a decrease in IV street drug use) among individuals with opiate depen dence who have prior antisocial personality disorders.

8. Naltrexone (Trexan) is an opiate antagonist drug (blocking the effects of heroin) given at a usual dose of 50 mg to 150 mg per day and which can be administered once per day.

9. Trexan itself has few major side effects, although some patients complain of a lack of joy in their life and some mild levels of depression while on the medication.

10. If a patient continues to take Trexan, he or she will be very likely to stay clear of street opiates.

    - The drop-out rate from use of Trexan might be as high as 90% in a six-month period, with the majority apparently returning to drug use.

VIII. *The Need for Aftercare*

OHD/Slide 3.15 on screen.

Refer to HO3.9.

A. Whether inpatient or outpatient, the initial intensive phase of treatment catches people's attention and begins to teach them the lessons that need to be learned.

B. The complex aspects of each of these lessons can only be appropriately under stood in a real-life situation.

C. The lessons also become more appropriate the further an individual is from their crisis that helped precipitate the onset of treatment.

D. Therefore, aftercare lectures, counseling, and family groups are an essential part of continuing to learn more and more complex aspects of recovery during the first 6 to 12 months of abstinence.

E. Aftercare groups should begin approximately once per week, but can be spaced out over a longer period as recovery continues.

F. The time of greatest risk of relapse is the first three months, followed by the second highest period of relapse in the subsequent three months.

G. Thus, the most intensive efforts should be focused in the first six months of recovery.

H. An essential component of aftercare for most substance dependent individuals is self-help group participation.

IX. *Summary*

A. Rehabilitation efforts for substance use disorders share similar major components.

B. The focus is on:

- optimizing levels of physical functioning
- increasing motivation for abstinence
- helping individuals to rebuild their lives without substances
- helping them to diminish the probability of relapse (relapse prevention)

C. Goals are instituted during an intensive initial phase of rehabilitation (often lasting from two weeks to four weeks) include:

- education
- counseling
- outreach to families
- the use of self-help groups

D. Medications have only a limited role in most rehabilitation efforts.

E. Efforts must be made to maintain contact with patients and to encourage their participation in aftercare as well as self-help groups for extended periods of time. This will optimize the probability of continued high levels of functioning.

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