

MODULE 3

OVERVIEW

An important goal of this program is to prevent relapse back into patterns of use that result in negative and disruptive outcomes.

Knowledge about alcohol and other drugs gives us a basis for preventing relapse. In this Module, we look at some basic facts and ideas about alcohol and other drugs. We then see how this knowledge applies to our own personal situation. On completion of *Module 3*, you will have a good idea of your AOD use and abuse patterns. You will be more aware of the problems and dangers of these patterns. Here are the specific goals of this module.

Alcohol and Other Drug (AOD) Use Patterns and Outcomes



- ◆ Gain basic understandings about AOD use and abuse.
- ◆ Understand the patterns of AOD use and abuse.
- ◆ Understand the pathways to disruptive AOD use outcomes and addiction.
- ◆ Have a clear picture of your own patterns of use and abuse.

***Module 3* has four sessions.**

Session 5: Alcohol and Other Drugs: How Do the Facts Fit You?

Session 6: Understanding Alcohol or Other Drug Use Patterns: How Do They Fit You?

Session 7: AOD Impaired Control Cycles: Pathways to AOD Problem Outcomes and Addiction

Session 8: AOD Use Problem Outcomes - Patterns of Misuse and Abuse: How Do They Fit You?

SESSION 5: Alcohol and Other Drugs – How Do the Facts Fit You?

SESSION INTRODUCTION AND OBJECTIVES

OBJECTIVES

- ▮ Learn some basic facts about alcohol and other drugs.
- ▮ Help you see how the facts and ideas fit you.

GETTING STARTED

- ▮ *CB Map Exercise.* Share your *Thinking and Action Plan (TAP) Charting*, page 300, that you did this week.
- ▮ Take a thinking rule in *Session 3* and apply that to an event that happened to you this past week.
- ▮ For thought and discussion: What is an alcohol problem? What is a drug problem? What causes alcohol and drug use problems?
- ▮ Key words: drug types, enhancers, suppressors, direct and indirect effects, tolerance, BAC, health risk, physical damage.

SESSION CONTENT AND FOCUS

BASIC FACTS AND KNOWLEDGE ABOUT DRUGS

1. **Definition:** A drug is a substance that changes or alters the way a person feels, thinks or acts.
2. **Drugs work** by changing the flow of electricity and the release of the body's natural nerve chemicals called neurochemicals.
3. **Table 1, page 46, shows five types or classes of drug**
 - ▮ **Sedatives, depressants or downers** slow down our nervous system. These are **system suppressor** drugs and include alcohol, barbiturates, sleeping pills and other sedatives, and inhalants.
 - ▮ **Narcotics or opiates** reduce pain and increase sense of pleasure and euphoria. These are also system suppressors. They slow down sensitivity to pain and internal and external stress.
 - ▮ **Stimulants or uppers** speed up or excite the nervous system. These are **system enhancers:** cocaine, amphetamines, ecstasy, caffeine. They speed up both the mind and the body.
 - ▮ **Hallucinogens** change or alter our perception and sense of reality. These are **mental enhancers**, but they enhance and change the mind.

- ▶ **Marijuana can both enhance and suppress the system.** The beginning effects are stimulation, pulse rate increases, some anxiety and tension which is followed by a pleasant feeling of well being and relaxation.

Nicotine is in a separate category, and has the effect of stimulating (initial) and relaxing the system. All five classes of drugs can be seen as either system enhancers, system suppressors, or both.

4. Drugs have a direct and indirect (withdrawal) effect

The **direct effects** happen when using the drug: they may be physical (sleepiness); psychological (feel good). The **indirect effects** happen when the drug wears off. This is the **withdrawal** or abstinence reaction.

5. Different drugs have different direct and indirect effects

The direct effect of a drug is usually opposite the indirect effect. **Alcohol: direct** - slows you down (go to sleep); **indirect** - speeds you up, shaky, nervous, can't sleep. **Cocaine: direct** - speeds you up; **indirect** - (withdrawal) slows you down. Both direct and indirect effects can cause problems. *Table 1* below gives the direct and indirect effects of the five types of drugs. The indirect effects are related to withdrawal. **Exercise:** Using *Table 1*, complete *Worksheet 8*, page 58. Write down the drugs you have used and the **direct** or intoxicating effects and the **indirect** effects from these drugs. Include alcohol.

6. Alcohol and other drugs make the body toxic

The body may become **dependent** on the drug, if it is in the system for a period of time. When the body withdraws from the drug, the system may go into shock. It is mental and physical. The shock to the nervous system can result in an epileptic seizure.

7. AOD tolerance causes physical and mental drug dependence

Tolerance is needing more and more of the drug to get the same results or the same amount gives less of what you expect. You may need four drinks now to get a "buzz," where once it took only two. It may take 10 times the amount of a narcotic (heroin) to get the same relief you got when first taking it. Behavioral tolerance means you may not look drunk with a BAC of .10.



You may need more of the drug to get the same reaction.

8. Mixing drugs increases the strength of one or both drugs

This is **drug interaction:** A drug gets stronger because another drug is in the body. A fatal dose of a barbiturate is lowered by 50 percent when alcohol is in the body. About half as much of some sleeping medications can be lethal when used with alcohol.

Two depressants more than double the effect of these drugs (*multiplying effect*). One drink and one sedative pill is like taking from three to 10 drinks. Thus, 2 + 2 is not equal to 4. It may be 5. It may be much more.

One drink with cold medicine doubles the effect of each drug. Together, they have a greater effect than either does alone. A stimulant - caffeine pills, coffee, cola, Mountain Dew, cocaine, amphetamines - with alcohol is dangerous. You think you are sober and you are not.

Prescription and over-the-counter drugs used for depression, colds, flu, and relaxing muscles can make you: drowsy, mentally confused, lack coordination, more intoxicated, have problems breathing and even can cause death. Mixed with alcohol they are double-dangerous.

T A B L E 1

Five Classes of Drugs: Their Direct and Indirect Effects

DRUG CATEGORY	DIRECT EFFECTS	INDIRECT EFFECTS
Sedatives - suppressors: Alcohol Tranquilizers Barbiturates Sleeping pills Inhalants	Drowsiness, sedated, relaxed, slurred speech, blackouts, poor motor control, depression, confusion, impaired muscle control, impaired judgment, lower blood pressure, impaired vision, work impairment.	Hyper, stimulation, agitation, irritability, hallucinations, delusions, anxiety, fear, shakes, headaches, tremors, seizures, vomiting, insomnia, work impairment.
Narcotics-suppressors: Heroin Oxycodone Codeine Oxycontin Morphine Vicodin Pain killers Percodan Methadone Demerol	Blocks pain, depression, increase sense of pleasure, relax, euphoria, impair judgment, reduce personal care, mental confusion.	Irritability, panic, anxiety, tremors, shakes, chills, sweating, cramps, nausea, loss appetite, runny nose, muscle aches, spasms.
Stimulants-enhancers: Amphetamines Methamphetamine Cocaine Caffeine Ritalin Adderall	Insomnia, euphoric, restless, talkative, weight loss, tremors, hyperactive, panic, agitation, sweating, dry mouth, paranoia, hallucinations, seizures, aggressive actions, inappropriate social behavior, impaired muscle coordination, impaired judgment, overconfident, increased blood pressure, work impairment.	Depression, paranoia, apathy, slow response to stimuli, headaches, fatigue, guilt, cravings, slowing of body functions, over-sleeping, slow responding, indifference.
Hallucinogens-enhancers: LSD Ketamine Mescaline Mushrooms PCP Ecstasy (MDMA)	Excitation, euphoria, hallucinations, insomnia, decrease coordination, confusion, flashbacks, delusions, simulation, increase heart and blood pressure.	Loss of appetite, depression, anxiety, irritability, delirium, paranoia, heavy use can damage brain.
Marijuana - Enhancer and Suppressor	Initially stimulated followed by pleasant feeling, relaxed, well-being, impaired motor coordination, slow reaction time, drowsiness, impairs judgment of speed and distance, impairs short-term memory, sometimes hallucinations, blocks tracking time, impairs ability to concentrate, paranoia.	Anxiety, irritability, paranoia, restlessness, sleeplessness, problems concentrating, stomach pain, vomiting, hostile behavior, increased anger.

ABOUT ALCOHOL

1. Some errors in thinking about alcohol and some facts

Error: Driving with just one drink won't harm.

Fact: One drink can impair your driving skills.

Error: Alcohol increases mental/physical skills.

Fact: Alcohol decreases mental/physical skills.

Error: Alcohol stimulates the body.

Fact: Alcohol slows down and depresses the body.

Error: Beer has less alcohol than whiskey.

Fact: One beer is the same as one shot of whiskey.

Error: Couple drinks warms the body.

Fact: Couple of drinks cools the body.

Error: Black coffee can sober me up faster.

Fact: Nothing will speed up getting sober.

Error: A cold shower can sober me up faster.

Fact: Nothing will speed up getting sober.

Error: Alcohol increases sexual desire/ability.

Fact: Alcohol decreases sexual ability.

Error: People are friendlier when drinking.

Fact: People are more hostile and dangerous.

Error: Alcohol gives you a lift, perks you up.

Fact: It is a sedative-hypnotic drug: it puts you to sleep.

2. Different drinks have different alcohol content

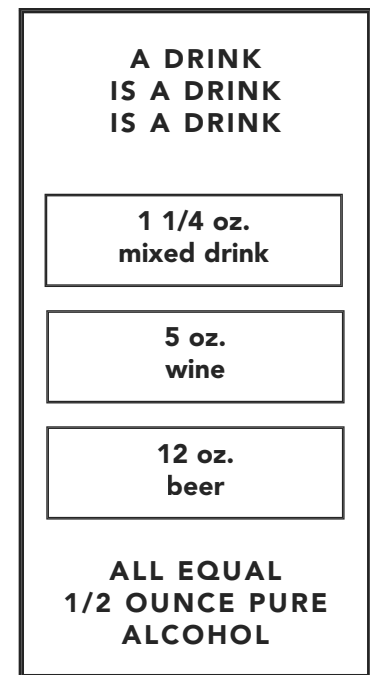
Beer: from 3.2 to as high as seven percent alcohol.

Wine: from seven percent to 13 percent.

Mixed drinks: usually 1.25 ounces of 80 proof (40 percent pure alcohol) spirits.

3. Blood Alcohol Concentration (BAC): percent of alcohol in body

A BAC of .10 is one tenth of one percent of alcohol in the body; or ten drops of alcohol to 10,000 drops of blood. For a BAC of .05: five drops of alcohol for 10,000 drops of blood. Each drink (wine, beer, spirits) increases BAC by about .02 percent. Under 140 pounds, the person's BAC increases more. BAC level is set by your weight, number of drinks and length of time drinking.



A drink is a drink is a drink

4. Here is what happens at different BAC levels

.02 - .04: Feel relaxed; judgment impaired; less inhibited; slower reaction time; some motor impairment; mood more intense; bad driving habits become worse.

.05 - .09: Emotions and behaviors magnified; impaired motor skills/judgment; not walk normally; inhibitions lowered; “so what” attitude; poor performance; legally impaired/drunken.

.10 - .14: Don't function normally; lack of muscle and motor control; poor coordination; seriously impairs self-criticism, judgment and emotional control; severe delayed reaction time; clumsiness; serious lack of concern about others and self.

.15 - .19: All the above but more severe; 25 times more likely to have fatal accident; slurred speech; staggering; serious impairment of vision, physical, mental functions; uncoordinated.

.20 - .30: All of the above but more severe; amnesia; blackouts; unable to walk alone; 100 times more likely to have fatal accident.

.30 - .39: Lose consciousness, pass out, stupor, confusion.

.40: Almost all will lose consciousness;

.45-.60: Fatal for most people.

Your risk of getting drunk - losing control over thoughts and behavior - is increased if you weigh less, are female, have little or no food in the body, have had little sleep, drink over a shorter period of time and are relaxed. If you have been drinking for several years, and have had six or seven drinks, you may not look drunk but may have a BAC of .10 - **behavioral tolerance**.

5. Figuring your BAC

Table 2, page 50, gives information for the number of drinks for six time periods which will result in a .05, .10, .15 or .20 BAC for men and women. For each hour beyond six, add one more drink for each BAC level. A 180 lb. man with a BAC of .10 and drank 7 hours would have taken 11 drinks. *Table 3*, page 51, provides approximate information about the number hours from the first drink to a zero BAC based on varying number of drinks for men and women. **WARNING:** Number of drinks and BACs in *Tables 2 and 3* are not exact. Number of drinks in *Table 2* often puts you above the BAC levels shown. BAC may be higher depending on alcohol content in the drink, food in stomach, body fat, and if person is tired.

Exercise: Using *Tables 2 and 3*, do *Worksheet 9*, page 58, to show your BAC for so many drinks over a period of time and hours it takes for BAC to reach zero. Put down your weight. Take your BAC for four drinks in three hours and read the above effects for that BAC.

6. What about calories?

There are about 80 to 90 calories in an average drink. Four drinks makes up 325 calories.

7. Absorbing alcohol or taking up the alcohol by the body

Alcohol begins entering the blood in the stomach. Most alcohol is taken up by the small intestines. It takes only a few minutes before it enters all of your body organs.

8. Breaking down (metabolizing) alcohol

The body breaks down one drink per hour: about 98 percent in the digestive system; two percent leaves through breath and urine. *Table 2* shows that a heavier person who drinks the same as a lighter person may have a lower BAC. But, the heavier person with more body fat may have a higher BAC, since body fat slows the breakdown of alcohol. Higher body fat increases risk of alcohol harming the body. Women may be more at risk because of higher body fat.

9. Health risks and alcohol

Every organ in the body can be affected by moderate to heavy drinking (three or more drinks). We look at how alcohol affects various parts of the body.

The liver: The liver removes poisons and impurities in the blood. Alcohol is one of these poisons. Six or more drinks a day increases the risk of liver disease. There are three kinds of liver diseases.

- ▶ **Fatty liver disease:** Fatty tissue builds up with moderate to heavy drinking (three to five drinks a day). Fatty tissue separates the cells and stops the liver from doing its job. This disease is cured through a good diet and no alcohol use.
- ▶ **Alcoholic hepatitis:** Fatty tissue separates the cells, less blood gets to the cells. The cells die.
- ▶ **Cirrhosis:** Dead liver cells turn to scar tissue; cannot be cured and can cause death.

Your stomach and digestive organs: Alcohol irritates the throat, stomach lining and digestive system. A burning sensation from straight liquor may be pleasant, but it means mouth, throat and stomach tissue are damaged. Alcohol releases digestive acid which irritates the stomach and can lead to gastritis, ulcers and bleeding in moderate to heavy drinkers. This risk increases if alcohol is used with stomach irritants such as aspirin. Cancers of the digestive system are 40 times greater among heavy drinkers. Heavy drinkers account for a majority of head, neck, mouth, tongue, and throat cancers. Alcohol has “empty calories.” Moderate to heavy drinkers may not eat properly. Alcohol prevents vitamins and important food nutrients from going into the blood and body.

The pancreas: The pancreas makes insulin and chemicals that are needed for digesting our food. Alcohol can inflame the pancreas and cause pancreatitis. Acute bleeding of the pancreas occasionally occurs from a single heavy drinking episode.

Your kidneys and lungs: Alcohol can cause fluids to build up in the body. This buildup can increase fluids in the lungs, increasing chances of lung infection.

Your muscles: Muscles are weakened by alcohol - **myopathy**. If you value strong muscles you will want to avoid even moderate drinking.

Approximate BAC Levels for Men: by body weight, hours of drinking and number of drinks (*). The number of drinks in the chart most often puts the person above the BAC level indicated

T A B L E 2

BAC BASED ON NUMBER OF DRINKS AND BODY WEIGHT - MEN																
Hours drank	120 lbs				140 lbs				160 lbs				180 lbs			
	.05	.10	.15	.20	.05	.10	.15	.20	.05	.10	.15	.20	.05	.10	.15	.20
One	2*	4	5	7	2	4	6	8	3	5	7	9	3	6	8	11
Two	3	4	6	8	3	5	7	9	4	6	8	10	4	7	9	12
Three	3	5	6	8	4	6	8	9	4	7	9	11	5	7	10	12
Four	4	6	7	8	4	7	9	10	5	7	10	12	6	8	11	13
Five	4	7	8	10	5	8	10	11	6	8	11	13	7	9	12	14
Six	5	7	9	11	6	8	10	12	7	9	12	14	8	10	13	16

* refers to the number of drinks

Approximate BAC Levels for Women: by body weight, hours of drinking and number of drinks (*) for **women**. The number of drinks in the chart most often puts the person above the BAC level indicated

T A B L E 2

BAC BASED ON NUMBER OF DRINKS AND BODY WEIGHT - WOMEN																
Hours drank	120 lbs				140 lbs				160 lbs				180 lbs			
	.05	.10	.15	.20	.05	.10	.15	.20	.05	.10	.15	.20	.05	.10	.15	.20
One	2*	3	4	6	2	4	5	7	3	4	6	8	3	5	7	9
Two	2	4	5	6	3	4	6	7	3	5	7	9	4	6	8	10
Three	3	4	6	7	3	5	6	8	4	5	7	9	4	6	8	10
Four	3	5	6	7	4	5	7	8	4	6	8	10	5	7	9	11
Five	4	6	7	8	5	6	8	9	5	7	9	11	6	8	10	12
Six	5	7	8	9	6	7	9	10	6	8	10	12	7	9	11	12

* refers to the number of drinks

Note: The number of drinks and BAC are only approximate. The BAC can be higher for the number of drinks depend-
ing on how much the person had to eat, how tired the person is and the amount of body fat the person has.

T A B L E 3**Approximate Hours from First Drink to Zero BAC levels:
FOR MEN**

YOUR WEIGHT IN POUNDS								
Number of drinks	120	140	160	180	200	220	240	260
1	2*	2	2	1.5	1	1	1	1
2	4	3.5	3	3	2.5	2	2	2
3	6	5	4.5	4	3.5	3.5	3	3
4	8	7	6	5.5	5	4.5	4	3.5
5	10	8.5	7.5	6.5	6	5.5	5	4.5
6	11	9.5	9	8	7.5	6.5	6	5.5
7	12	11	10	9	9	8	7	6
8	13	12	11	10	10	9	8	7

* Refers to the number of hours before reaching a BAC of zero

T A B L E 3**Approximate Hours from First Drink to Zero BAC levels:
FOR WOMEN**

YOUR WEIGHT IN POUNDS								
Number of drinks	120	140	160	180	200	220	240	260
1	3*	2.5	2	2	2	1.5	1.5	1
2	6	5	4	4	3.5	3	3	2.5
3	9	7.5	6.5	5.5	5	4.5	4	4
4	12	9.5	8.5	7.5	6.5	6	5.5	5
5	15	12	10.5	9.5	8	7.5	7	6
6	17	14	12.5	11.5	10	9.5	9	8
7	18	15	14	13	11	11	10	9
8	19	16	15	14	12	12	11	10

* Refers to the number of hours before reaching a BAC of zero

Note: The number of hours is approximate and depends on how much the person has had to eat and the amount of body fat the person has.

Your heart and blood system: Heavy to excessive drinking (five or more drinks) can cause heart problems and increase blood pressure - particularly with smokers. Heavy drinking can weaken and damage heart muscle. Heavy drinking can upset the electrical control pattern causing the heart to beat fast or skip a beat. One to two drinks a day will most likely not increase risk of heart problems or high blood pressure.

Your brain and nerves: Brain damage leading to mental impairment can result from even mild to moderate drinking. Heavy to excessive drinking prevents the brain's ability to do its normal job.

- ▶ The blood brain barrier blocks alcohol from getting to it if the alcohol amount is small. Several drinks can break this barrier which damages brain cells. Some experts say that brain cells are damaged by the presence of any alcohol in brain. Alcohol damages and destroys brain cells that are responsible for learning, memory and mental functioning.
- ▶ Heavy drinking can greatly reduce mental power, damage memory and the ability to learn new ideas or new ways to do things. Brains of excessive-chronic alcoholic drinkers are smaller - the outer layer shrinks.
- ▶ Alcohol and other drugs have a greater negative effect on the adolescent (not fully developed) brain than on the adult.
- ▶ Some kinds of brain damage from alcohol use cannot be reversed. The good news: most mental impairment due to alcohol use can be reversed.
- ▶ Excessive drinking can damage nerve cells in the hands, feet and other body extremities noted by tingling of the fingers and feet, weakness of the muscles or numbness.

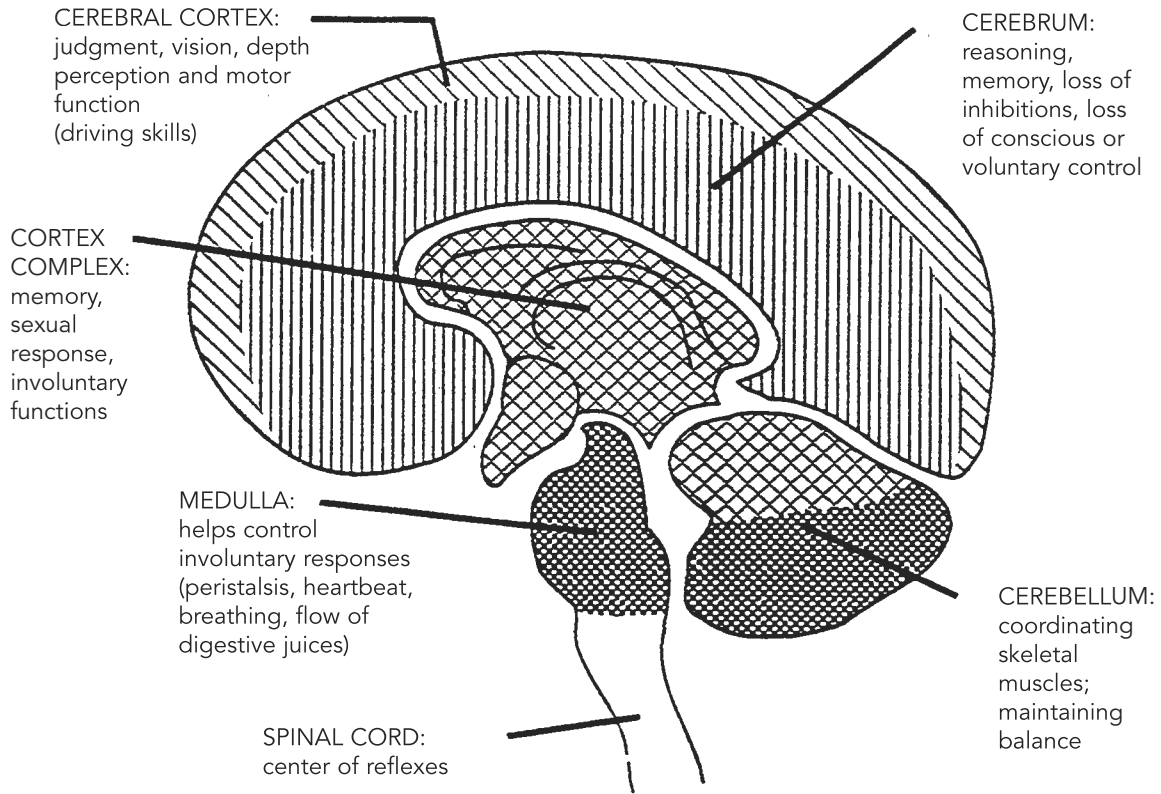
Figure 6 shows a picture of the brain and the effects of alcohol on the brain. Look at it carefully.


Your disease or immune defense system: The immune defense system fights off infections and diseases. Over time, heavy drinking weakens the body and increases the risks of major illnesses such as cancer or minor illnesses such as colds.


The man's reproductive and sexual functioning system: Heavy drinking over time can cause loss of hair, cause fatty tissue to build up in the breasts, and can shrink testicles. Drinking can decrease testosterone levels, damage the ability to perform sexually or cause impotence. Loss of testosterone can increase "female" characteristics of the body. IT MAY TAKE A REAL MAN TO HOLD HIS LIQUOR, BUT THE LIQUOR MAY TAKE AWAY THE REAL MAN.


The woman's reproductive and sexual functioning system: In women, drinking can change sex hormone balances and promote loss of female features of the body. Heavy drinking is linked to sexual, menstrual and gynecological problems. It can decrease ability to get pregnant. Drinking during pregnancy is linked to miscarriage, still births, birth defects and mental deficits in children. It can cause fetal alcohol syndrome (FAS). We will talk about that below.


BRAIN FUNCTIONS AFFECTED BY ALCOHOL



 ONE TO TWO REGULAR DRINKS
(BAC .01 to .04)
reason, caution, intelligence, memory

 FIVE TO SEVEN REGULAR DRINKS
(BAC .09 to .15)
sense, coordination, balance

 THREE TO FOUR REGULAR DRINKS
(BAC .05 to .08)
self-control, judgment

 EIGHT TO TWELVE REGULAR DRINKS
(BAC .16 to .30)
vital centers

one drink = 1 beer or one glass of wine or one mixed drink

11. Loss of tolerance

This takes place because AOD use has damaged the liver and body organs. Loss of tolerance means the effect of alcohol is greater with less amounts of alcohol; and it takes less alcohol to get “high” or drunk; or the same amount of alcohol will have greater impact on the body. If you can’t drink as much as “you used to,” then you may have tissue damage. This may be true with other drugs.

Exercise: *Worksheet 10*, page 59, helps figure your tolerance or lack of tolerance to alcohol and other drugs you have used. Check whether your tolerance has decreased (takes less of the drug to get high) or has increased (need more of the drug to get high) or stayed the same.

12. Genetic factors - do you inherit AOD addiction and alcoholism?

If you are male and your father had an alcoholic problem, your chances of developing alcoholism is greater. Studies show genetics increase alcoholism risk. There is no specific gene for alcoholism. Psychological, social and cultural factors are powerful influences in developing alcoholism and drug abuse.

WHAT ABOUT MARIJUANA?

The marijuana user often argues that marijuana is not a dangerous drug. Is that really true? It is the most widely used illicit drug in the U.S. The most frequent drug-related visits to emergency rooms for youth 12 to 19 are for marijuana abuse. Physical effects can be severe, especially for adolescents.

Delta-9-THC or tetrahydrocannabinol is the chemical in marijuana that acts on the brain. Marijuana has hundreds of chemicals. More than 60 become active and “storm” the body. THC is stored in body fat and gets trapped in the fatty body parts - the liver, brain, reproductive parts and lungs. It stays in the body for a long time - often 60 days or more.

In *Table 1*, marijuana is described as both an enhancer and suppressor. It can slow down behavior, reaction time, mental reactions and the sense of time. It can increase mental activity, making you more suspicious and paranoid and can cause hallucinations. *Table 4* below provides a summary of the short-term direct effects, long-term direct and indirect effects, and the withdrawal effects.

Marijuana can lead to CRIMINAL CONDUCT. It magnifies the thoughts of “I don’t care, so what.” AND, if you are drinking alcohol - well, **the picture is clear** (unless you are on alcohol or marijuana)! Your thinking is impaired.

Because marijuana has a much higher level (more than 50 percent) of cancer-causing hydrocarbons than tobacco, it can be damaging to the lungs and cause respiratory problems. Even moderate users may have these kinds of physical problems.

Mixed with other drugs, marijuana can be dangerous. With alcohol and other system suppressors, the body can become more depressed and body functions can slow down to a dangerous level.

T A B L E 4

Effects of Marijuana

SHORT-TERM DIRECT EFFECTS	LONG-TERM DIRECT/INDIRECT
Sleepiness and drowsiness	Develop tolerance
Blocks short-term memory	Develop physical dependence
Blocks ability to learn	Increases risk of cancer
Blocks tracking time	Increases testosterone in women
Impairs motor coordination	Decreases fertility in women
Bloodshot eyes, dry mouth	Reduces sexual pleasure
Less inhibited socially	Reduces motivation to do tasks
Paranoia and hallucinations	Reduces motivation to succeed
Blocks messages to brain	May make heart problems worse
Changes how you see and feel	Weakens body defense system
Distorts or twists time	Affects memory, learning
Distorts body parts, space	Damages lungs
Causes high rate of accidents	Causes breathing illnesses

WITHDRAWAL OR REBOUND EFFECT WHEN STEADY USER STOPS USING	
Restlessness	Vomiting
Aggressiveness	Irritability
Stomach Pain	Increased anger
Anxiety	Hostile behavior
Paranoia	

OTHER HEALTH RISKS FROM ALCOHOL AND OTHER DRUGS

1. Harmful mental and physical outcomes of other drugs

Most of the health risks that come from alcohol and marijuana also come from other drugs. All drugs are toxic - they affect the liver, heart, brain and other organs. Here are some examples.

Amphetamines and methamphetamines rapidly increase the pleasure chemicals in the brain - dopamine - that can give euphoria for eight to 24 hours. Excessive and chronic use: causes rapid and irregular heart beat and increased blood pressure that results in damage to small blood vessels in the brain that cannot be reversed and can cause strokes; damages brain cells responsible for memory, judgment and decision-making; and can cause serious mental problems such as depression, anxiety, psychosis, suicidal and violent behaviors.

Cocaine and crack cocaine makes dopamine more available in the brain reward center. Some of the dangers are: rapid addiction, even after one binge exposure; leads to severe depression and intense cravings on withdrawal; seizures; narrows blood vessels that stresses the heart; causes strokes; causes violent behavior; and causes serious long-term mental and behavioral problems for children whose mothers used during pregnancy.

Opiates produce strong addictions and strong drug-seeking behavior, cause serious social adjustment problems; and painful, though not life-threatening, withdrawal.

Ecstasy causes irreversible and long-term damage to nerve cells that bring normal pleasures. Short-term, acute use causes body changes such as dehydration that can lead to heart or kidney failure.

Tobacco's harmful effects are well known. It is responsible for more deaths, money costs and health problems than all other legal and illegal drugs combined.

2. Sexually transmitted diseases (STDs)

Drug use increases risk of STD because drugs reduce judgment and inhibitions, making one less cautious about engaging in unsafe sex. AOD abusers are higher risk for becoming HIV positive and developing the *Acquired Immune Deficiency Syndrome* (AIDS). AIDS is caused by the HIV virus which attacks the body's defenses against diseases. The risk for becoming HIV positive comes from: unprotected and unsafe sex; and from needles used to inject drugs such as heroin.

3. Increased risk of hepatitis B and C

Drug users are at higher risk for getting hepatitis B and C because of greater chance to take part in unprotected sex and through intravenous (IV) use of drugs. Hepatitis B and C can also be gotten through getting a tattoo and possibly through nasal (nose) use of cocaine and other drugs. Have a few drinks, lose your inhibitions, get a tattoo and you might get hepatitis C.

4. Fetal Alcohol Syndrome (FAS) and Fetal Drug Effects

Alcohol use during pregnancy can result in the FAS. Alcohol is carried through the baby's blood at the same BAC as with the mother. Even with moderate amounts of alcohol use by the mother, the baby may have slow physical and mental development, mental retardation, poor coordination, behavioral and learning problems, and physical abnormalities of head, face, heart, joints and limbs. FAS is the third leading cause of birth defects. IT CAN BE PREVENTED. DON'T DRINK WHEN YOU ARE PREGNANT.

All drugs in *Table 1*, page 46, may cause damage to the fetus. Stimulants - cocaine, methamphetamines - increase chances of low birth weight, miscarriages, stillbirths and *Sudden Infant Death Syndrome* (SIDS). We are familiar with crack babies. DON'T USE ANY DRUGS WHEN YOU ARE PREGNANT.

Exercise: Using *Worksheet 11*, page 59, decide whether your AOD use has affected your body and mind - caused you health problems.

DRUG USE INCREASES RISK OF CRIMINAL CONDUCT

Table 5 on the next page provides ways that drugs interact with CC. **Exercise:** Using *Worksheet 12*, page 59, write down how AOD use played a part in your past criminal conduct.



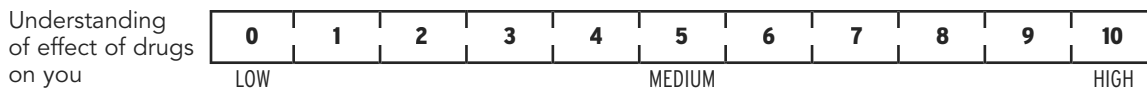
T A B L E 5

How Alcohol and Other Drugs Relate to Criminal Conduct

<p>SEDATIVE-DEPRESSANTS: ALCOHOL, TRANQUILIZERS, BARBITURATES</p>	<p>MARIJUANA</p>
<p>Impairs judgment Lowers inhibitions Makes mood more intense Impairs the sense of timing Increases impulsive risk taking Unable to predict consequences Makes you not care Causes errors in thinking Weakens moral responsibility</p>	<p>Impairs judgment Lowers inhibitions Impairs memory Causes "so what" attitude Decreases responsible behavior Decreases self-criticism Weakens moral responsibility Blocks awareness of consequences</p>
<p>STIMULANTS: AMPHETAMINES, COCAINE, CAFFEINE</p>	<p>HALLUCINOGENS: LSD, Mescaline, PEYOTE, MUSHROOMS</p>
<p>Impairs judgment Increases edginess Causes overreaction Promotes overconfidence Increases risk-taking Blocks awareness of consequences Causes thinking errors</p>	<p>Impairs judgment Increases unpredictable and dangerous behavior Causes false perceptions Increases erratic behavior Causes errors in thinking</p>

SUMMARY OF SESSION ACTIVITIES, HOMEWORK AND CLOSING GROUP

1. Do *Worksheets 8 through 12*.
2. Update your *Master Skills List, Program Guide 1*, page 291 and MAP, page 295. Continue working on your *Autobiography*. If finished, share this with your provider or counselor. Do your *TAP charting*, page 300, for this week.
3. Using the *SSC Scale* rate your level of understanding of how alcohol and other drugs have affected your mind and body.



4. Share with your group the kinds of drugs you have used in your life. What was your drug of choice? Can you live life without using that drug? How attached are you to the drug?

WORKSHEET 8

Drugs that you have used

SPECIFIC SUPPRESSOR DRUGS USED	DIRECT (INTOXICATING) EFFECTS	INDIRECT (WITHDRAWAL) EFFECTS
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
SPECIFIC ENHANCER DRUGS USED	DIRECT (INTOXICATING EFFECTS)	INDIRECT (WITHDRAWAL) EFFECTS
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

WORKSHEET 9

Your personal BAC level and hours to reach a BAC of zero

YOUR WEIGHT: NUMBER OF DRINKS	NUMBER OF HOURS DRINKING				NUMBER OF HOURS FOR BAC TO "0"
	1 HOUR	2 HOURS	3 HOURS	4 HOURS	
Two drinks	BAC:	BAC:	BAC:	BAC:	
Three drinks	BAC:	BAC:	BAC:	BAC:	
Four drinks	BAC:	BAC:	BAC:	BAC:	
Five drinks	BAC:	BAC:	BAC:	BAC:	
Six drinks	BAC:	BAC:	BAC:	BAC:	
Seven drinks	BAC:	BAC:	BAC:	BAC:	

W O R K S H E E T 1 0

Degrees of tolerance

TYPE DRUG	YEARS USED	CHECK COLUMN THAT FITS YOUR CHANGE IN TOLERANCE				
		MUCH DECREASE	SOME DECREASE	SAME	SOME INCREASE	MUCH INCREASE

W O R K S H E E T 1 1

Apply what you have learned to your own AOD use: Do you think alcohol or other drugs have affected your mind (brain) and body? If so, how?

DRUG	HAS THIS DRUG AFFECTED YOUR MIND? HOW?	YOUR BODY? HOW?
ALCOHOL		
MARIJUANA		
COCAINE		
AMPHETAMINES		
OTHER DRUGS		

W O R K S H E E T 1 2

Your AOD use and criminal conduct (CC): Write down three specific things about your alcohol or other drug use that played a part in your CC.

WHAT ABOUT YOUR AOD USE THAT PLAYED A PART IN YOUR CRIMINAL BEHAVIOR?
1.
2.
3.

SESSION 6: Understanding Alcohol or Other Drug Use Patterns: How Do They Fit You?

SESSION INTRODUCTION AND OBJECTIVES

We look at the different AOD use patterns and see how they fit you. We want you to understand your own use patterns and how you can change them to prevent further AOD problems and criminal conduct.

OBJECTIVES

- ☞ Share how you see your AOD use patterns.
- ☞ Look at various AOD use patterns and see how they fit you.
- ☞ See how AOD use pattern lead to criminal conduct.

GETTING STARTED

- ▶ *CB Map Exercise.* Share your *Thinking and Action Plan (TAP) Charting, Program Guide 4*, page 300, that you did this week.
- ▶ For discussion: What is an alcohol or drug problem? Review *Worksheet 8*, page 58, of *Session 5, Drugs You Have Used*.
- ▶ Key words: quantity, frequency, prediction patterns, benefits from use, solo use, gregarious use.

SESSION CONTENT AND FOCUS

ALCOHOL QUANTITY-FREQUENCY-PREDICTION (QFP) PATTERN

Check the statements below as to how they fit you **before your last arrest and when you were in the community.** **Quantity** or **amount** per day when you drank.

- Light Drinker: one drink.
- Moderate drinker: two to three drinks.
- Heavy drinker: four to five drinks.
- Excessive drinker: six or more.

Frequency or how often: Check the one that fits you.

- Infrequent: Less than one time a month.
- Occasional: Less than one time a week.
- Frequent: One to three days a week.
- Consistent: Four to five days a week.
- Daily/sustained: six to seven days a week.



Prediction or forecast pattern: Check the one that fits you.

- Predictable drinker: Drank at the same time each day, such as only after work.
- Unpredictable drinker: Drank at any time, no pattern, one day after work, another after eating.

Describe your QFP pattern. You might be a moderate, frequent and predictable drinker.

OTHER DRUG QUANTITY-FREQUENCY-PREDICTION (QFP) PATTERN

Check the answer under each section below on the basis of **your drug use before your last arrest and when you were in the community. If you did not use drugs other than alcohol, skip rest of page.**

Number of other drugs you have used.

- NEVER used any drug other than alcohol.
- Mono-drug user: used only one drug besides alcohol.
- Polydrug user: used several drugs (besides alcohol).



Frequency or how often.

- Infrequent: Less than one day a month.
- Occasional: Less than one day a week.
- Frequent: One to three days a week.
- Consistent: Four to five days a week.
- Daily/sustained: Six to seven days a week.

Prediction pattern or how you would forecast your drug use:

- Predictable: used same time each day, such as only when get off work.
- Unpredictable drug user: Could use drugs at any time.

For each drug in the table below you have used, describe your QFP pattern **before your last arrest.**

MY DRUG QUANTITY-FREQUENCY-PREDICTION PATTERN FOR DRUGS USED	
Marijuana	_____
Cocaine	_____
Amphetamines	_____
Hallucinogens	_____
Pain Killers	_____
Tranquilizers	_____
Other Drugs	_____

SOCIAL PATTERNS: GREGARIOUS-SOCIAL VERSUS SOLO:

Here are the different social styles of alcohol or other drug use.

- ▶ **Solo-isolate pattern.** Uses mainly alone, at home, sometimes with others, not at bars and only at parties when necessary.
- ▶ **Social or gregarious user.** Uses mainly with friends, at bars, at parties, with others.
- ▶ **Mixed solo and social:** Uses alone at times, and at other times, uses with others.

Exercise: *Worksheet 13: Social-gregarious style*, page 65. Answer the questions as to your past AOD use. Put your score on *Profile 1*, page 67, and mark your score on that line with an “X”.

Exercise: Do *Worksheet 14: Solo AOD style*, page 66. Answer the questions as to how you see your past AOD. Put your score on *Profile 1*, page 67.

If you score **high-medium to high** on **Solo** and **low to low-medium** on **Social**, you fit the **Solo** pattern. If you score **high-medium to high Social** and **low** on **Solo**, you fit the **Social** pattern. If you score **high** on both, you are both a **Solo** and **Social** user. Everyone will be either a **Social** or a **Solo** user or both.

BENEFITS OF AOD USE

People can depend on alcohol or other drugs (AOD) to be happy, to handle problems, to perform better and feel less stressed. **Exercise:** Complete *Worksheet 15*, page 67, based on the time when you were involved in AOD use. Put your score for BENEFITS on *Profile 1*, page 67.

For *Worksheets 13* through *15*, you are compared with a group of your peers in the adult judicial system. Look at your percentile scores in *Profile 1*. A 50th percentile score means you score higher than 50 percent of your peers who completed the surveys. How do you compare with your peers on the three scales?

Look at the BENEFITS scale on *Profile 1*. If your score was from eight to 13, you are somewhat AOD dependent as to meeting your social and emotional needs (you score higher than about 70 percent of your peers). If your score is from 14 to 24, you are quite AOD dependent. If your score is above 24, then you may be very dependent on AOD use to meet your social and emotional needs. **Discuss your results.**

SUMMARY OF DIFFERENT PATTERNS OF AOD USE

From what we have learned, we can now identify different patterns of alcohol or other drug use.

- ▶ **Abstainers - the non-use pattern:** About 25 to 30 percent of adults do not use alcohol.

- ▶ **Quantity-frequency-prediction (QFP) use pattern.** If you are a frequent, daily-sustained, heavy AOD user, your AOD use may be a strong part of your CC pattern.
- ▶ **Social or Solo:** Some fit one or the other; some fit both.
- ▶ **Benefits pattern:** Most people who use alcohol or other drugs do so to relax, deal with stress, overcome depression, deal with physical pain, relate to others better, etc.

How do you see yourself? What is your QFP pattern: “heavy-frequent-unpredictable”? Are you a “solo” user? Are you socially-psychologically AOD dependent? Describe your AOD use patterns in the space below.

DESCRIBE YOUR ALCOHOL OR OTHER DRUG USE PATTERN

AOD USE AND CRIMINAL CONDUCT (CC)

Social style and benefit AOD use patterns are often related to criminal activity.

Exercise: *Worksheet 16*, page 68, gives specific behaviors found among persons who get involved in criminal conduct. Answer the questions as to how the answers best fit you during the time when you were involved in criminal conduct. If your total score is 12 to 16, then your AOD use had a strong relationship with your CC. If your score was 5 to 11, AOD use and CC are related, but not as strongly. If your score is “0” to 2 or 3, then your AOD use has low or no relationship with your CC.

Exercise: Using all of the information you have been given in this session, in the space below, describe your use pattern that led to or was related to your criminal conduct

MY AOD USE PATTERN THAT WAS PART OF MY CRIMINAL CONDUCT

CHANGING OUR AOD USE PATTERNS

We change and stop AOD use by changing our thoughts, attitudes and beliefs that are part of our alcohol and other drug use. In *Session 3*, we looked at four types of thought habits or automatic thoughts that lead to emotional and action outcomes. These thought habits also lead to patterns of AOD use that get us into trouble - or relapse. Let's review these. **Expectancies** - "if I take a drink, I'll relax." **Appraisals** - "drinking with my friends is important to me." **Attributions** - "I got caught because the cops were out to get me." **Decisions** - "I decided to have a few drinks to give me courage."

Exercise: *Worksheet 17*, page 68, will help you to see how your past AOD use patterns fit these four thought habits. You change and stop your patterns of use by changing these thought habits or automatic thoughts. You may have already learned some mental skills for changing those thoughts. In group, use these skills for change the thought habits you put on *Worksheet 17*.

SUMMARY OF SESSION ACTIVITIES AND HOMEWORK ASSIGNMENTS

1. Do *Worksheets 13 through 17*.
2. Update your *Master Skills List, Program Guide 1*, page 291 and MAP, page 195.
3. Continue working on your *Autobiography*. If you are finished, share this with your provider or counselor.
4. Do your *TAP charting, Program Guide 4*, page 300, for this week. Look at the *TAP Charting* you have done so far. How do your past patterns of use relate to the pattern you have been charting each week? Share what you see with your group.
5. Using the *SSC Scale*, rate your level of understanding and knowledge of your own alcohol or other drug use pattern.

Understanding of your own AOD use pattern	0	1	2	3	4	5	6	7	8	9	10
	LOW			MEDIUM						HIGH	

SESSION CLOSURE

Share with your group your AOD use patterns identified in this session. How hard will it be for you to change these patterns? How are these patterns related to problems you have had with AOD use? This is our topic for next session.

W O R K S H E E T 1 3

Your past social-gregarious AOD use style: For each question, check the answer in the column that best fits you. Then add up your scores. For every check in the "1" column, give yourself a one, for every check in the "2" column, give yourself a two, and for every check in the "3" column, give yourself a three. Add up each column and put the total score on the bottom row. Then put your score on the "Social-Gregarious" row on Profile 1, on page 67.

QUESTION	0	1	2	3
1. Do most of your friends drink or use drugs?	No	Yes		
2. Does your social life require you to drink or use drugs?	No	Yes		
3. Do you do most of your drinking at bars?	No	Yes		
4. Do you go to parties where there is drinking or drug use?	No	Once a month	2-3 times a month	4 times or more a month
5. Do you usually drink or use drugs with the same people?	No	Yes		
6. Do you do most of your drinking or drug use with friends and people you know?	No	Yes		
7. Is drinking or drug use an important part of getting together with people?	No	Sometimes	Often	Very often
TOTAL COLUMN SCORES				
TOTAL SCORE				

From K. Wanberg & J. L. Horn, 2004, Alcohol and Other Drug Use Inventory (AOD-UI), Center for Addictions Research and Evaluation, Arvada, CO. Used with permission.

Your past solo AOD style: For each question, check the answer in the column that best fits you. Then add up your scores. For every check in the "1" column, give yourself a one, for every check in the "2" column, give yourself a two, and for every check in the "3" column, give yourself a three. Add up each column and put the total score on the bottom row. Then put your score on the "Solo" row on Profile 1, below.

WORKSHEET 14

QUESTION	0	1	2	3
1. Do you do most of your drinking or drug use at home?	No	Yes		
2. Do you drink in a bar by yourself?	No	Sometimes	Often	Very Often
3. When drinking or using drugs with others, do you keep to yourself?	No	Sometimes	Usually	Almost always
4. Do you drink or use drugs at home alone?	No	Sometimes	Usually	Almost always
5. Have you stayed in a room by yourself and drank or used drugs?	No	A few times	Many times	Very often
6. Do you drink or use drugs alone?	No	Sometimes	Usually	Almost always
7. When you find yourself alone, do you drink or use drugs?	No	Sometimes	Often	Usually
TOTAL COLUMN SCORES				
TOTAL SCORE				

From K. Wanberg & J. L. Horn, 2004, Alcohol and Other Drug Use Inventory (AOD-UI), Center for Addictions Research and Evaluation, Arvada, CO. Used with permission.

WORKSHEET 15

Benefits you got from drinking or other drug use: Put a check in the column that best fits your answer. For each check in the "sometimes" column, give yourself one point, for each check in the "a lot" column, give yourself two points, for each check in the "almost all the time" column, give yourself three points. Then put your total score in the last line and on Profile 1, below.

I USE ALCOHOL OR OTHER DRUGS TO	0 NO	1 SOMETIMES	2 A LOT	3 ALMOST ALL THE TIME
1. feel less tense or stressed				
2. feel less depressed				
3. forget my problems				
4. bring on good feelings and emotions or to feel happy				
5. have fun with others				
6. be more mentally alert				
7. relax and unwind				
8. change my mood or emotions				
9. calm myself down				
10. get along with others				
TOTAL SCORE: USE THE SCORING GUIDE DESCRIBED ABOVE				

From K. W. Wanberg, 2004, Adult Substance Use Survey - Revised (ASUS-R), Center for Addictions Research and Evaluation, Arvada, CO. Used with permission.

PROFILE 1

AOD Use Profile: Put the score from Worksheets 13, 14 and 15 under the score column and then find the number on the row and put an X over that number. Where do you fall? In "low," "low-medium," "high-medium" or "high"?

SCALE	SCORE	LOW	LOW-MEDIUM	HIGH-MEDIUM	HIGH
SOCIAL		1	2	3 4	5 7 9 11
SOLO		0	1 2	3	4 8 10 14
BENEFITS		0 1 2 3	4 5 6 7	8 9 11 13	14 18 25 33
PERCENTILE		1 10 20 30 40 50 60 70 80 90 99			

WORKSHEET 16

How AOD use is related to criminal conduct: Answer the questions below based on the time that you were involved in criminal conduct. Give yourself a "1" for each check in the "Sometimes true" column, "2" for each check in the "Usually true" column. Put your total score in the last line.

AOD USE AND CRIMINAL CONDUCT	0 NOT TRUE	1 SOMETIMES TRUE	2 USUALLY TRUE
1. Drink with friends who commit crimes			
2. Use other drugs with friends who commit crimes			
3. Used alcohol/drugs before a crime			
4. High on alcohol/drugs when committing a crime			
5. Use alcohol/drugs after committing a crime			
6. AOD use part of daily lifestyle			
7. Drink at bars in neighborhood where criminal associates live			
8. Attitude of "I don't care" when high			
TOTAL SCORE			

WORKSHEET 17

How your thought habits or automatic thoughts are part of your AOD use

THOUGHT HABITS OR AUTOMATIC THOUGHTS	EXAMPLE	EXAMPLES OF HOW THEY APPLY TO YOU
EXPECTANCIES	If I have a couple of beers, I'll relax.	
APPRAISALS	I feel more relaxed now after having a couple.	
ATTRIBUTIONS	I drank because my husband yelled at me.	
DECISIONS	I'm going to have a "couple" before going home.	

SESSION 7: AOD Impaired Control Cycles: Pathways to Problem Outcomes and Addiction

SESSION INTRODUCTION AND OBJECTIVES

In *sessions 5 and 6*, you learned about alcohol and other drugs and your own patterns of use. We now look at the AOD impaired control cycles and pathways to AOD problem outcomes and addiction.

OBJECTIVES

- ➡ Understand the pathways to AOD addiction.
- ➡ Learn the AOD impaired control cycles and how you might fit these cycles.

GETTING STARTED

- ▶ Start with the *CB Map Exercise*. Share your *Thinking and Action Plan (TAP) Charting* for this week. Share one problem you have had from AOD use.
- ▶ Key words: impaired control cycles, rebound, withdrawal, AOD addiction

SESSION CONTENT AND FOCUS

We look at two pathways to AOD problem outcomes and addiction: 1) the **mental-behavioral** impaired control cycle (MB-ICC); and 2) the **mental-physical** impaired control cycle (MP-ICC).

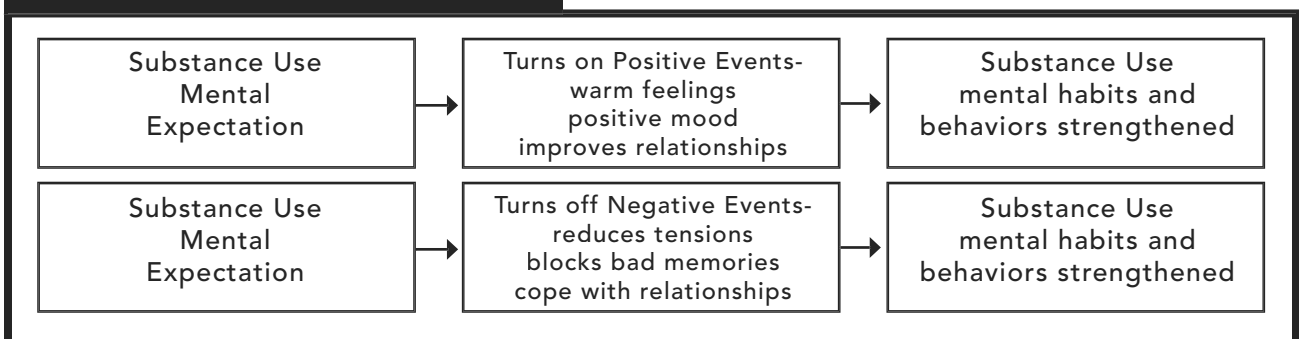
THE MENTAL-BEHAVIORAL IMPAIRED CONTROL CYCLE - MB-ICC

How AOD use becomes a habit pattern

Remember the two pathways for learning behavior? **First**, when an action **turns on something positive**, it gets strengthened. **Second**, when a behavior **turns off something unpleasant** it gets strengthened. *Figure 7* below shows how these two pathways lead to AOD use becoming a habit pattern. Our thoughts leading to AOD use and our AOD use behavior are strengthened.

FIGURE 7

How AOD Use Becomes a Habit Pattern and Is Reinforced or Strengthened



How Mental-Behavioral Impaired Control Cycle - MB-ICC Works

The first step to AOD problem outcomes is when AOD use becomes a **habit pattern**. This can lead to the MB-ICC, shown in *Figure 8*. We take you step-by-step through this cycle.

- ▶ **Life situations (Point A in *Figure 8*)** lead to a need or desire to feel good (increase pleasure) or not feel bad (decrease discomfort) and we **expect drugs** to do this for us.
- ▶ **AOD use to increase pleasure or decrease discomfort (Point B)** with the **outcome** that this does happen.
- ▶ **AOD use expectancies (thoughts) and behaviors are strengthened (Point C)**. Many users never go beyond **Point C**. But this path can lead to the problem outcome or impaired-control cycle.
- ▶ **Negative consequences or problem outcomes** result from AOD use (**Point D**) causing stress. This is called a drug use problem. Many stop here. They think: “I have a problem,” (**appraisal**), “It’s my problem” (**attribution**), and I’m going to stop to prevent another problem” (**decision**). Such changes in thought lead to changes in action. The person stops AOD use and uses other ways to cope with stress. Continued AOD use sets the stage for the next step.
- ▶ **Use to cope with stress and discomfort from AOD use (Point E)**. If drugs helped cope with the life stresses, then we expect them to help deal with the stress from AOD problems. We drink to handle the problems from drinking. We use drugs to handle the stress we get from AOD use. This leads to the next step.
- ▶ **Further problems from use (Point F)** to handle the problems from use. At **Point D** it was an AOD *use problem*. Now, it is a pattern of use problems - a *problem user*. Use has also increased stress. Here, many users **decide** to change patterns or stop use. They change thought and action habits to handle life problems in a more adaptive way.
- ▶ **AOD use to manage life problems and problems from use (Point G)**. Now there may be AOD abuse or dependence. Further use leads to more problems. The person uses because he uses. An old proverb: “A man takes the drink. The drink takes the drink. The drink takes the man.”

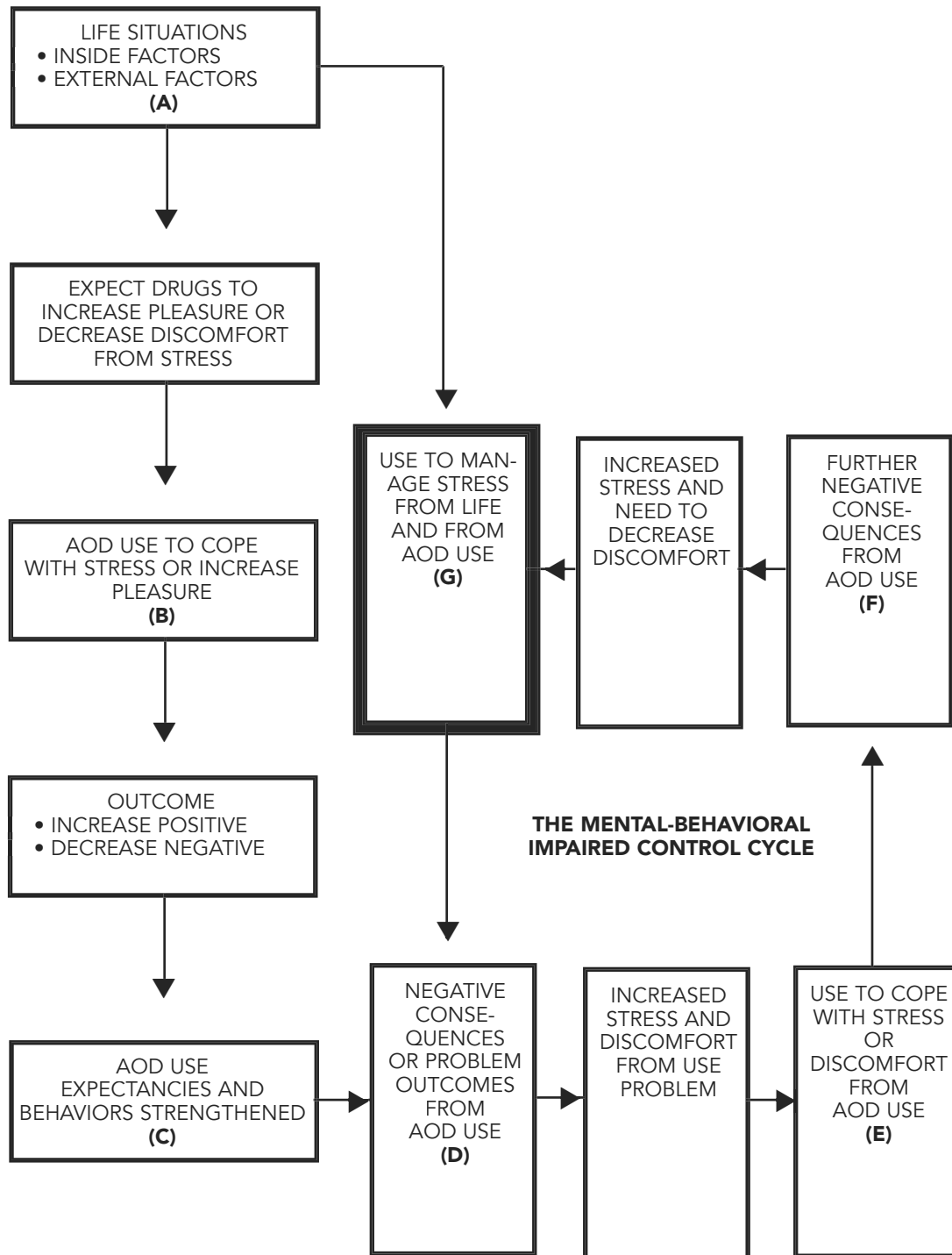
Exercise: Use *Figure 8* as a worksheet to see how you fit the cycle. Write down thoughts you might have at each of the points. Practice changing these thoughts to stop the cycle.

MENTAL-PHYSICAL IMPAIRED CONTROL CYCLE - MP-ICC*

Figure 9 shows an overview of the MP-ICC. The direct effect of drugs may be: feel relaxed, sedated, calm, reduce stress, get excited and stimulated. When the drug wears off, the **indirect** or **withdrawal** effects take over - or **rebound** - the opposite of the direct effect. For **alcohol**: stress, agitation, anxiety and body tension. **Cocaine**: depression, tiredness. What is the quick “cure”? Continue to use, get back the direct effect and “cure” the discomfort. With alcohol: drink to maintain a balance in body tension or stop long enough to work through withdrawal and develop a drug-free state of balance.

FIGURE 8

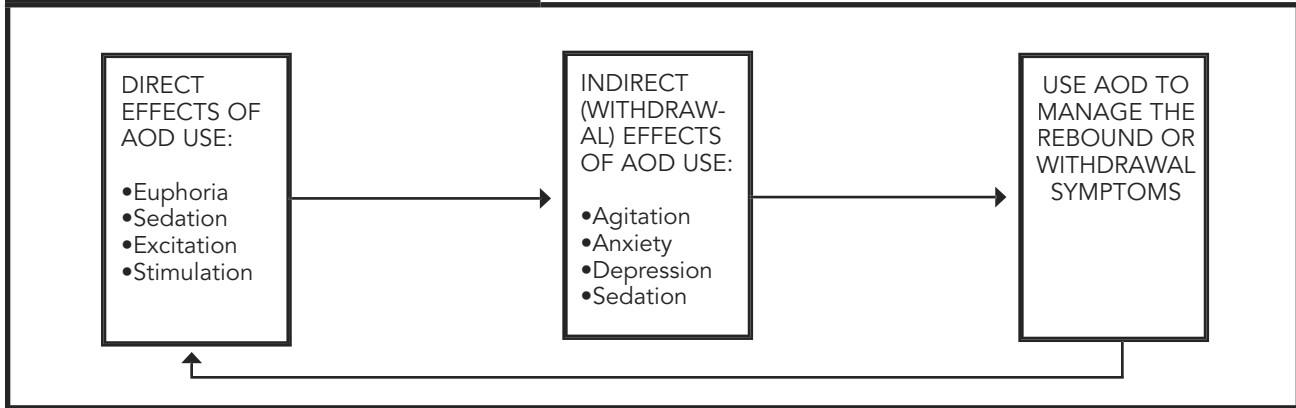
Mental-Behavioral Impaired Control Cycle (MB-ICC)



(Adapted from Wanberg, 1971, 1990)

FIGURE 9

Mental-Physical Impaired Control Cycle (MP-ICC)



Figures 10 through 13 show the mental-physical pathways to AOD use impaired control or problem outcomes and addiction. We use the sedative drug alcohol to illustrate the MP-ICC.

Figure 10: normal or average tension level (ATL) between lines A and B. Each cycle is around two to three hours. At the high end we could feel good, energetic; or agitated and anxious. The response depends on our mood and physical needs.

FIGURE 10

Normal Daily Cycle of Average Tension Level (ATL)

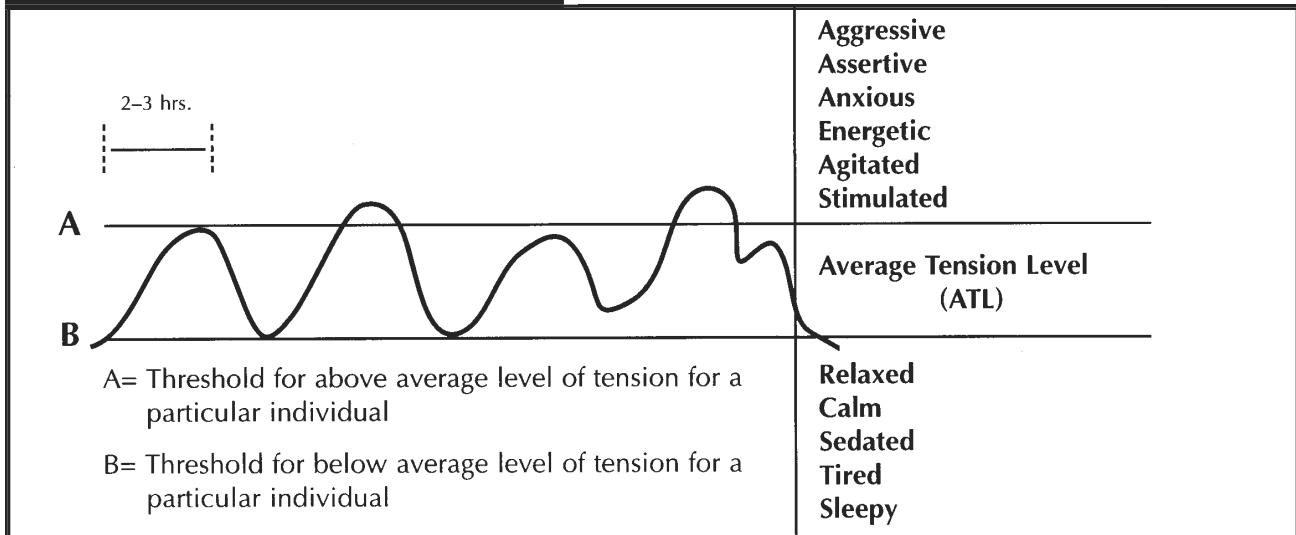
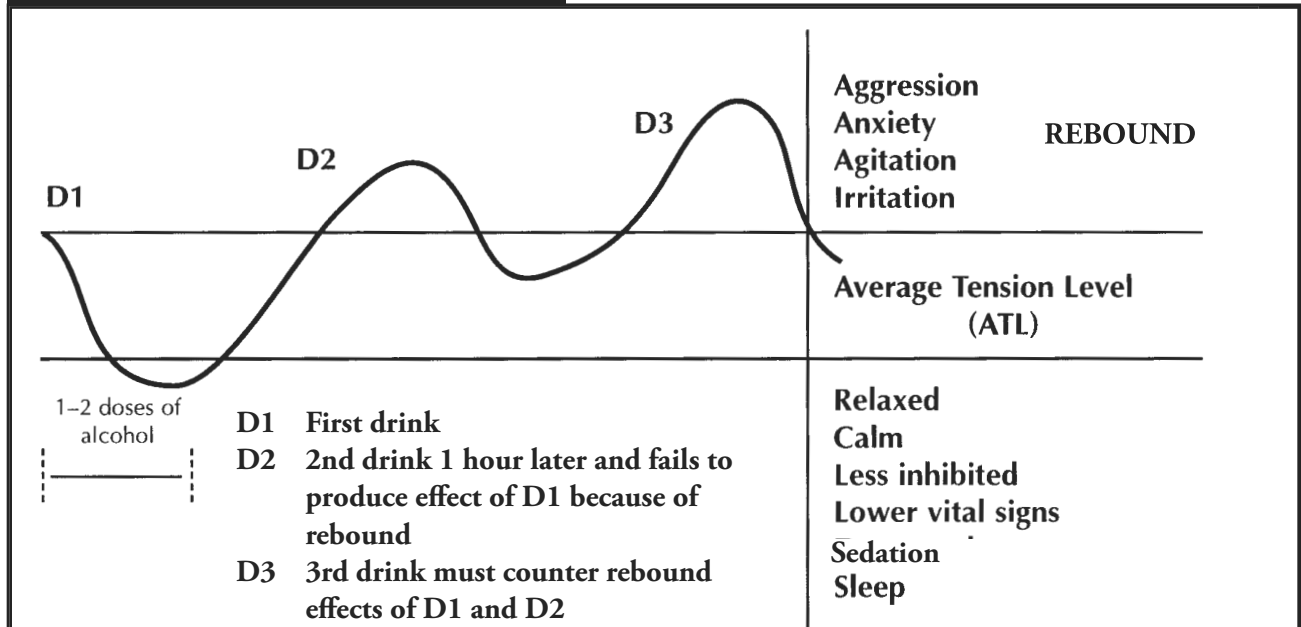


Figure 11 shows that a sedative drug (alcohol) slows down the nervous system and changes the number of ATL cycles. The body's direct reaction to alcohol (suppressor drug) is in the lower right-hand corner of Figure 11. When alcohol wears off, we "rebound" into nervous-excitement - withdrawal that lasts longer than sedation. One drink at **D1** causes sedation for up to two hours **followed** by rebound for up to three hours. A second drink taken an hour later at (**D2**) has less sedative effect since it works against rebound from the first drink. A third drink at **D3**, results in little sedation since that drink has to work against the rebound from the first two drinks.

FIGURE 11

Mental-Physical Addiction or Impaired Control Cycle: Counter effect of rebound or withdrawal when taking several drinks



Rebound keeps the body chemicals from slowing or stopping normal activities (heart beat, breathing). During deep sleep, natural stimulant chemicals are produced to keep all activities from stopping - or death. The body's reaction to alcohol is the same - producing the natural stimulants to prevent sedation. But alcohol is so strong, it blocks this natural chemical. When alcohol wears off, the natural stimulant-like drugs that have been blocked are released and take over. The body rebounds into a state of stimulation and agitation.

Figure 12 on the next page shows rebound or withdrawal when the sedative (alcohol) leaves the body and the natural stimulants are released. The length of rebound depends on how long and how much we drink. It may continue for several weeks or even months after drinking is stopped.

Several days after alcohol leaves the body, rebound is less intense, but there is ongoing, low level stress. Add this to normal daily stress, and the need and urge to drink is increased. This risk of relapse can last several months after quitting drinking. Taking a drink can relieve the stress and stop the withdrawal symptoms. A drink or more at *D2* in *Figure 12* "takes off the edge" - "the hair of the dog that bit you." It is one of the bases of addiction to alcohol.

Figure 13 on the next page shows a pattern of daily, steady drinking and a need to drink every one or two hours during non-sleep to avoid withdrawal — the "strung out" user. Doses are closer together and work against the rebound of prior doses. Rebound reduces the strength of each dose. The body demands more of the drug to maintain the body balance. Steady use may be only to relieve the pain of withdrawal. If the drug is stopped, minor symptoms such as inability to sleep or shakes may occur within 24 hours. More serious symptoms may occur within 72 hours. These symptoms, upper right hand column of *Figure 13*, may be life-threatening.

*The Mental-Physical impaired control cycle and graphs are based on the work of: Stanley Gitlow (1966, 1970, 1982, 1988); Stuart Gitlow (2001); Glenn & Hochman, 1977; Glenn & Warner, 1975; Glenn, Warner & Hockman, 1977; Peyser, 1988; Grilly, 1989; Fromme & D'Amico, 1999; Wanberg, 1990; Wanberg & Milkman, 1998). Sources are in the Provider's Guide.

FIGURE 12

Mental-Physical Addiction or Impaired Control Cycle: Longer periods of rebound and withdrawal from a longer time of heavy to excessive alcohol use.

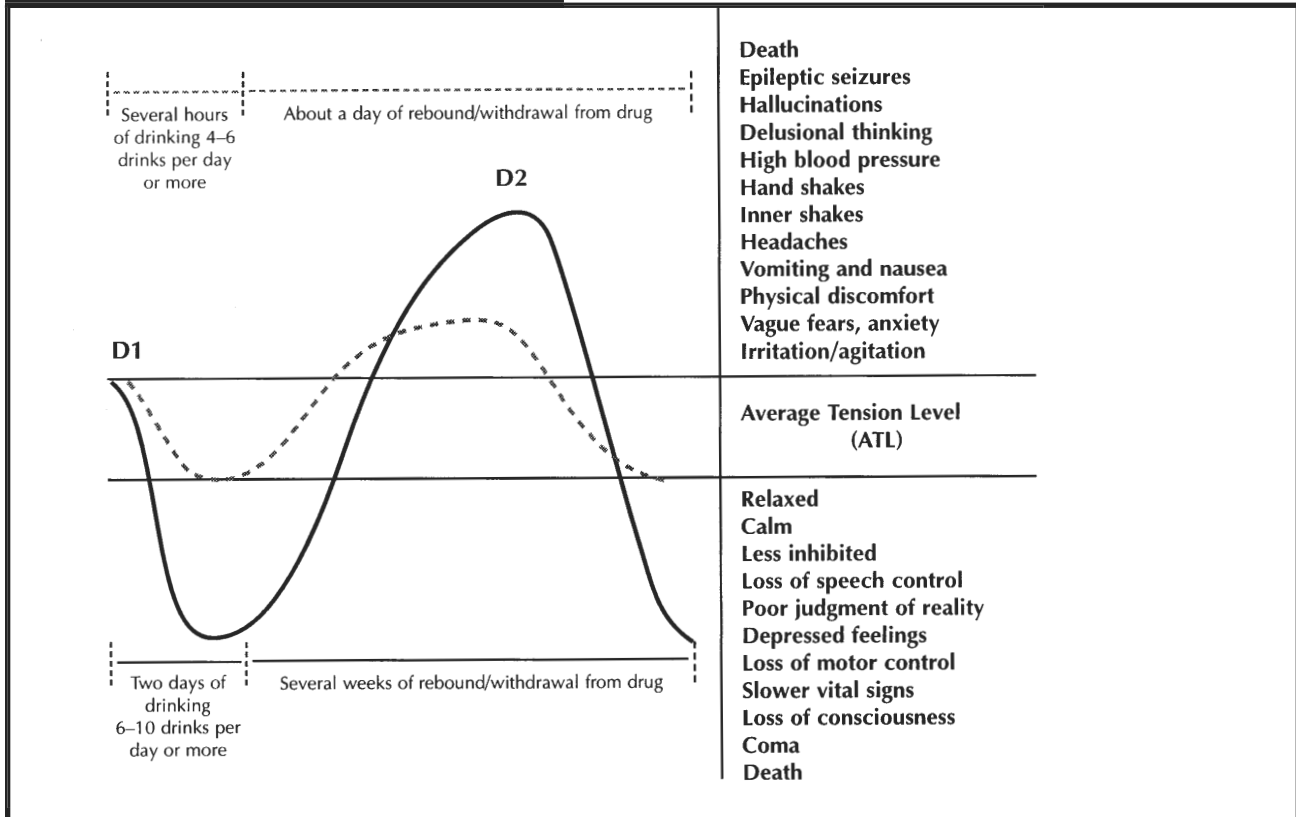
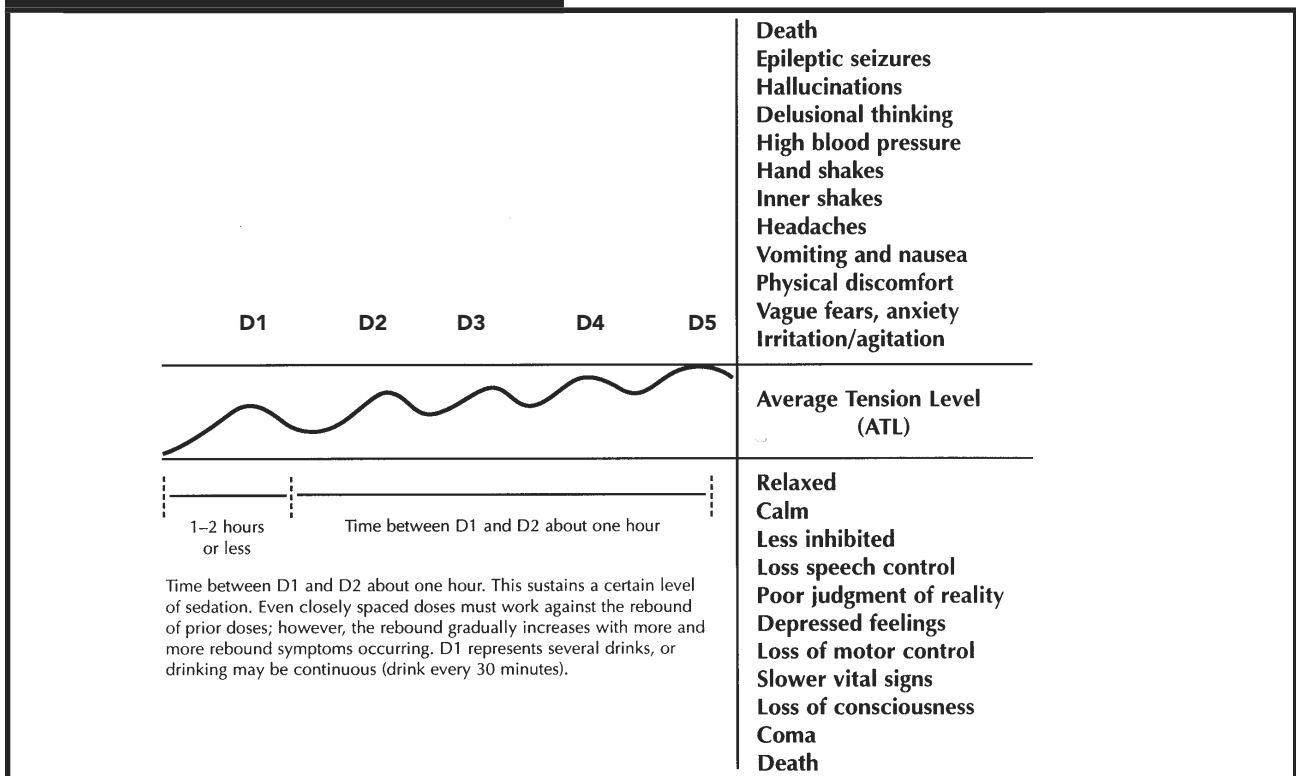


FIGURE 13

Mental-Physical Addiction or Impaired Control Cycle: The "strung out user"



This MP-ICC applies to other drugs. The direct effects of a stimulant (amphetamines, cocaine) are physical and mental stimulation or agitation. When the drug starts to leave the body, rebound or withdrawal begins and is the opposite of that for sedative drugs or system suppressors. This rebound causes depression, tiredness, and a “crashing” effect. Relief for the rebound is to use the drug. The cocaine-addict uses cocaine to stop the cocaine withdrawal symptoms. **Mental-physical addiction or dependence is using the drug to stop the rebound or withdrawal from the drug. A continuous AOD user is avoiding the mental and physical discomfort of withdrawal.**

Exercise: Using *Figure 9*, page 72, write down the direct results you get from alcohol (first Block in *Figure 9*). What are withdrawal or indirect results (second Block) that you might have had? Now, look at how *Figures 10 through 13* apply to you. **Exercise:** Discuss this in group. Relate how you have used alcohol or other drugs to cope with rebound or withdrawal effects.

SUMMARY OF SESSION ACTIVITIES OR HOMEWORK

1. Using *Worksheet 18*, page 75, do a Thinking Report on an event that made you think you wanted a drink. Describe the event, your thoughts, attitudes, beliefs, feelings and outcome.
2. Update your *Master Skills List, Program Guide 1*, page 291 and MAP, page 195. Continue working on your Autobiography. If finished, share this with your provider or counselor. Do your *TAP charting, Program Guide 4*, page 300 for this week.

SESSION CLOSURE

Share with your group how you fit the *mental-behavioral impaired control cycle* (MB-ICC) and the *mental physical-impaired control cycle* (MP-ICC) for drugs you have used in your life.



W O R K S H E E T 1 8	Thinking Report: Use an event that happened to you when you thought you wanted a drink.
DESCRIBE THE EVENT:	
YOUR THOUGHTS:	
YOUR FEELINGS:	
YOUR ATTITUDES AND BELIEFS:	
THE OUTCOME:	

SESSION 8: AOD Use Problem Outcomes: Patterns of Misuse and Abuse-How Do They Fit You?

SESSION INTRODUCTION AND OBJECTIVES

In *Session 7*, we learned that AOD use can result in two impaired controlled cycles: the Mental-Behavioral and Mental-Physical. Now, we will look at how those cycles lead to AOD problem outcomes and specific patterns of AOD misuse and abuse.

OBJECTIVES

- ☛ Identify the specific symptoms and negative outcomes you have experienced from AOD use.
- ☛ Look at specific AOD problem outcome and misuse patterns and see how they fit you.

GETTING STARTED

- ☛ Start with the *CB Map Exercise*. Share your *Thinking Report* on *Worksheet 18*, page 75 and your *Thinking and Action Plan (TAP) Charting* that you did this week.
- ☛ Review the patterns of AOD use in *Session 6* and Impaired Control Cycles in *Session 7*.
- ☛ Key words: AOD problem outcomes, AOD problem, problem user, *Substance Abuse*, *Substance Dependence*.

SESSION CONTENT AND FOCUS

PROBLEM OUTCOMES AND SYMPTOMS FOR DIFFERENT DRUGS

In *Session 5*, *Table 1*, page 46, we look at the direct and indirect effects of the five classes of drugs. Many of these effects are actual problem outcomes or symptoms of drug use.

Exercise: Put a circle around each drug in *Table 1* that you have used. Then, put a check by each direct and indirect effect that has been a symptom or problem outcome of your drug use.

FOUR TYPES OF AOD PROBLEM OUTCOMES

Type 1 problem outcome: AOD use problem

If you have had a problem from AOD use, then you have had an **AOD problem**. Many AOD users will have gotten an AOD problem at least once in their lifetime. A hangover, saying something that offended another person or being arrested for DWI. You can fit this pattern even though you are not addicted or do not fit the rules for *Substance Abuse* or *Substance Dependence* described below.

Type 2 problem outcome: *Problem drinker or AOD problem user*

The *problem drinker or problem user* has developed a pattern of problems from AOD use. This is the person who has continued to points F and G in *Figure 8*, page 71.

Exercise: *Worksheet 19*, page 79, is a measure of problem outcomes or negative consequences resulting from AOD use **during your lifetime**. BE HONEST. It is only for your use. Put your score in the AOD PROBLEMS score box on *Profile 2*, page 80, and find your score on that row. Where do you fall? A score between 3 and 6 indicates problems from your use. A score between 7 and 23 indicates a **problem drinker** or **problem user** and maybe **Substance Abuse**. A score between 24 and 43 indicates **Substance Abuse**. A score higher than 44 suggests **Substance Abuse** or even **Substance Dependence**. The higher the score, the greater the chances of having further AOD problems in the future.

The percentile score allows you to compare your score with clients in the adult justice system. **Example:** A score of 15, would mean that you score higher than 50 percent of a sample of clients in the adult justice system. If you have done Session 13, then you have already done *Worksheet 19*. Go ahead and do it again. Then put your total score in the 2nd column on the table on page 107. Compare your scores. Is the one you just took higher? Lower?

Type 3 Problem Outcome: *Problem user - Substance Abuse*

From 10 to 15 percent or more of adults will fit a diagnosis of *Substance Abuse* or *Substance Dependence* disorder. These diagnoses are based on guidelines developed by the *American Psychiatric Association*. ***Substance Abuse (SA)* is a maladaptive pattern of substance use that leads to a condition of impairment or distress revealed or shown by one of the conditions found in *Worksheet 20*.**

Exercise: *Worksheet 20*, page 80, gives the rules for *Substance Abuse (SA)*. Check if any of the four statements fit you within any 12 month period. If you checked one of the four statements, you might fit the SA diagnosis. At the bottom of *Worksheet 20*, write down two or three of the AOD use outcomes that have been most upsetting to your life.

Type 4 Problem Outcome: *Problem user - Substance Dependence*

As many as 10 percent or more of adults will fit the *Substance Dependence (SD)* diagnosis. ***Substance Dependence* is a maladaptive pattern of substance use that leads to a condition of impairment or distress revealed or showed by three or more of the conditions found in *Worksheet 21*.**

Exercise: *Worksheet 21*, page 81, gives the guidelines for *Substance Dependence (SD)*. Check whether any of the seven statements fit you within any 12 month period. If you checked 3 or more, then you might fit the SD disorder. At the bottom of *Worksheet 21*, write two or three of the AOD use outcomes that have been the most upsetting to your life.

Only a qualified professional can make a diagnosis of *Substance Abuse* or *Substance Dependence*. *Worksheets 20 and 21* give you guidelines as to whether you might fit these two AOD use problem outcomes.

PUTTING IT TOGETHER

Put your scores for GREGARIOUS, SOLO and BENEFITS from *Profile 1*, page 67, on *Profile 2*, page 80. You will use *Profile 2* to describe your AOD use and outcome pattern. How do you see your AOD use problem outcome pattern? Have you had a **drinking problem?** Were you a **problem drinker?** Do you fit the *Substance Abuse or Substance Dependence* categories? **Exercise:** Use *Worksheet 22*, page 82, and check all that apply to you. If you check *Substance Dependence*, then you will check yes to all of the other three categories. It could be that you only checked number 1, “Have had a drinking problem.”

Exercise: Using the work space at the bottom of *Worksheet 22*, page 82, describe your AOD use pattern. Describe your style (daily, weekends, solo, gregarious), degree of disruption (low, medium, high), and the type of problem outcome pattern: use problem, problem user, problem user-*Substance Abuse* or problem user-*Substance Dependence*. Share your findings with group. What skills can you use to change these patterns.

SUMMARY OF SESSION ACTIVITIES OR HOMEWORK

1. Do *Worksheets 19* through *22*. Update your *Master Skills List*, *Program Guide 1*, page 291. Do some work on your *Master Assessment Plan* (MAP), page 295. Continue working on your *Autobiography*. If you are finished, share this with your provider or counselor.
2. Do your *TAP charting*, *Program Guide 4*, page 300, for this week. How do your past patterns of use relate to the pattern you have been charting each week. Share what you see with your group.
3. Using the *SSC Scale*, rate your level of understanding and skills for what you learned in *Sessions 7 and 8*.

Understanding how the Mental Behavioral Impaired Control Cycle fits you

0	1	2	3	4	5	6	7	8	9	10
LOW			MEDIUM					HIGH		

Understanding how the Mental Physical Impaired Control Cycle fits you

0	1	2	3	4	5	6	7	8	9	10
LOW			MEDIUM					HIGH		

Understanding of your own AOD use pattern

0	1	2	3	4	5	6	7	8	9	10
LOW			MEDIUM					HIGH		

Knowing what AOD problem outcome you fall in

0	1	2	3	4	5	6	7	8	9	10
LOW			MEDIUM					HIGH		

SESSION CLOSURE

Share your AOD use patterns that you identified in this session. Do you fit either the *Substance Abuse or Substance Dependence* diagnosis? How serious do you think your AOD problem is?

WORKSHEET 19

Negative outcomes from alcohol or other drug use: Put a check in the column that best fits your answer. For each check in the "1" column, give yourself a one; for each check in the "2" column, give yourself a two; for each check in the "3" column, give yourself a three; for each check in the "4" column, give yourself a four. Put your total score in the last row.

NEGATIVE OR UNPLEASANT SYMPTOMS RESULTING FROM YOUR ALCOHOL OR OTHER DRUG USE	0	1	2	3	4
	NEVER	1-3 TIMES	4-6 TIMES	7-10 TIMES	MORE THAN 10 TIMES
1. Had blackout when using (forgot what you did but still awake)					
2. Became physically violent					
3. Staggered and stumbled around					
4. Passed out (became unconscious)					
5. Tried to take your own life					
6. Saw or heard things not there					
7. Became mentally confused					
8. Thought people out to get you					
9. Had physical shakes or tremors					
10. Became physically sick or nauseated					
11. Had a seizure or a convulsion					
12. Had a rapid or fast heart beat					
13. Became very anxious, nervous or tense					
14. Was very feverish, hot, sweaty					
15. Did not eat or sleep					
16. Caused money problems					
17. Unable to go to work or school					
18. Neglected your family					
19. Broke the law or committed a crime					
20. Could not pay your bills					
TOTAL SCORE (USE THE INSTRUCTIONS AT TOP OF CHART FOR SCORING)					

From K. W. Wanberg, 2004, Adult Substance Use Survey - Revised (ASUS-R), Center for Addictions Research and Evaluation, Arvada, CO. Used with permission.

AOD Use Summary Profile: Put the scores from *Profile 1*, page 67, in the *Score boxes of the profile below*. Then find the number on the row and put an X over that number. Where do you fall? In "low," "low-medium," "high-medium" or "high"?

PROFILE 2

SCALE	SCORE	LOW	LOW-MEDIUM	HIGH-MEDIUM	HIGH
SOCIAL		0 1	2	3 4	5 - 11
SOLO		0	1 2	3	4 - 14
BENEFITS		0 1 2 3	4 5 6 7	8 10 12 13	14 20 25 33
AOD PROBLEMS		0 1 2 3	4 5 7 8 9 14	15 20 21 28 30	37 49 50 80
PERCENTILE		10 20	30 40 50	60 70	80 90 99

WORKSHEET 20

Risk of Substance Abuse: Put a check in the right column of these patterns if they happened to you within any 12-month period.

GUIDELINES FOR SUBSTANCE ABUSE	CHECK
1. Repeated substance use making you unable to do your duties at work, school, or home (such as repeatedly missing work or poor work output, being late to work, being suspended or expelled from school, neglecting your household duties or children).	
2. Repeated substance use in situations where it is physically hazardous (such as driving or operating a vehicle under the influence of a substance).	
3. Repeated substance-related legal problems (such as several DWIs, substance-related disorderly conduct, charges related to domestic violence).	
4. Continued substance use knowing that you have had repeated social or relationship problems caused by or made worse by the effects of substance use (such as conflicts with spouse about your substance use, arguments and physical fights, etc.).	
YOUR TOTAL SCORE (ADD UP YOUR CHECK MARKS)	
<p>WRITE DOWN 2 OR 3 OF THE AOD USE OUTCOMES THAT HAVE BEEN MOST UPSETTING TO YOUR LIFE.</p> <p>_____</p> <p>_____</p> <p>_____</p>	

Based on criteria for Substance Dependence as defined by the American Psychiatric Association (2000). *Diagnostic Statistical Manual of Mental Disorders* (4th ed., text revision). Washington, DC, Author

Risk for Substance Dependence: Put a check in the right column of these patterns if they happened to you within the same 12 month period.

GUIDELINES FOR SUBSTANCE DEPENDENCE	CHECK
1. Your tolerance has changed in either of the following ways: a) you need a lot more of the substance to get the desired outcome or intoxication; or b) you get a lower effect with use of the same amount of substance.	
2. You have had signs or symptoms of withdrawal from AOD use as shown by one or both at the following: a) when stopping the use of a substance you have symptoms such as: sweating, increased pulse rate, shakes, unable to sleep, sick to stomach, seeing, hearing or feeling things not there, feeling anxious, having a convulsion or seizure; b) you take the substance to relieve or avoid the symptoms of withdrawal.	
3. You have taken the substance in larger amounts over a longer period of time than you really meant to.	
4. When you won't cut down or control the use or you have been unable to cut down, control or stop using the substance.	
5. You have spent a lot of time trying to get substances (such as driving to get liquor late at night, driving long distances to a bar or liquor store, making sure you would always have your afternoon drinks), or a lot of time trying to recover from its use.	
6. You have given up important and fun social, work or recreational activities or cut down on these activities because of substance abuse.	
7. You continue to use the substance even though you know its use has caused you ongoing problems (such as: continue to drive even though you know you can get or have gotten a DWI; continue to drink even though you know it will upset your spouse or cause you to get into conflicts with your spouse; continue to use cocaine even though you know it causes depression on withdrawal).	
TOTAL SCORE (ADD ALL OF THE CHECKS)	
WRITE DOWN 2 OR 3 OF THE AOD USE OUTCOMES THAT HAVE BEEN MOST UPSETTING TO YOUR LIFE. <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	

Based on criteria for Substance Dependence as defined by the American Psychiatric Association (2000). *Diagnostic Statistical Manual of Mental Disorders* (4th ed., text revision). Washington, DC, Author

Your AOD classification: Rate yourself as to what classes of AOD use problems you fit into **when you were drinking or using other drugs**. Check all that apply.

AOD USE PROBLEM CLASSES: CHECK ALL THAT FIT YOU	NO	YES
<p>1. Drinking or Other Drug Use Problem: If you have ever had a problem from AOD use, then check "yes." If you had a DWI arrest and see it as being a problem, then you have an AOD use problem. If you checked any symptom in <i>Worksheet 19</i>, you may have had an AOD problem.</p>		
<p>2. Problem Drinker or Problem Drug User: If you have had several AOD use problems for a period of time or during your lifetime, then you have been into a pattern of alcohol or other drug misuse. We call this <i>problem drinking or problem drugging</i>. If you checked several symptoms in <i>Worksheet 19</i>, or reached point <i>F</i> in <i>Figure 8</i>, page 71, you are probably a <i>problem drinker or problem user</i>.</p>		
<p>3. Problem Drinker or User - Substance Abuse: You probably fit this category if you have had several AOD use problems for a period of time or during your life and you checked one or more of the statements in <i>Worksheet 20</i>, page 80.</p>		
<p>4. Problem Drinker or User - Substance Dependence: You probably fit this category if you have had repeated problems from AOD use and if you checked three or more of the statements in <i>Worksheet 21</i>, page 81. IF YOU FIT THIS CATEGORY, YOU FIT THE ABOVE THREE CATEGORIES.</p>		
<p>YOUR TOTAL SCORE (ADD UP YOUR CHECK MARKS)</p>		
<p>PUTTING IT TOGETHER: MAKE A SUMMARY OF YOUR AOD USE PATTERNS</p>		
<p>1. Your style of use (what drugs, how often, how much):</p>		
<p>2. Your style of use (social, solo):</p>		
<p>3. Your level of seriousness of your AOD use problem:</p>		
<p>4. Type of outcome or classification:</p>		