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Alcohol and Drug Use in Women

Substance Abuse

Substance use disorders include abuse and dependence on alcohol, cigarettes, pharmaceutically produced drugs, and illicit drugs.

Women with substance use disorders are commonly seen in primary care settings, including obstetrical/gynecological practices. Women with substance use disorders typically have responsible social roles and behave appropriately, in contrast to the “fallen woman” stereotype.

Substance Dependence vs. Substance Abuse

Substance *dependence* is a pattern of repeated drug use and preoccupation with drug use despite significant drug-related adverse consequences. The person’s life becomes organized by drug acquisition and drug taking.

Substance *abuse* is defined as a pattern of harmful consequences due to substance use. Unlike substance dependence, there is no tolerance or withdrawal, nor is there compulsive use.

Diagnostic Criteria for Substance Dependence

Substance dependence is a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

1. Tolerance, as defined by either of the following:
 - a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect.
 - b. Markedly diminished effect with continued use of same amount of the substance.
2. Withdrawal, as manifested by either of the following:
 - a. The characteristic withdrawal syndrome for the substance.
 - b. The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms.
3. The substance is often taken in larger amounts or over a longer period than was intended.
4. There is a persistent desire or unsuccessful efforts to cut down or control substance use.
5. A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects.
6. Important social, occupational, or recreational activities are given up or reduced because of substance use.
7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or

exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

Specify if:

With Physiological Dependence: evidence of tolerance or withdrawal (i.e., either Item 1 or 2 is present).

Without Physiological Dependence: no evidence of tolerance or withdrawal (i.e., neither Item 1 nor 2 is present).

Diagnostic Criteria for Substance Abuse

- A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:
 - 1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to neglect of children or household).
 - 2. Recurrent substance use in situations in which it is physically hazardous (e.g., driving and automobile or operating a machine when impaired by substance use).
 - 3. Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct).
 - 4. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights).
- B. The symptoms have never met the criteria for Substance Dependence for this class of substance.

Medical Complications

Cigarettes – see Tobacco Use Section

Alcohol

Women develop cirrhosis, peptic ulcer that requires surgery, myopathy, and cardiomyopathy at lower levels of alcohol intake than men. Due to greater susceptibility to negative effects of alcohol, the National Institute on Alcohol Abuse and Alcoholism sets a limit of one drink per day for women as “moderate drinking” where two drinks per day is the limit for men.

Reports linking alcohol consumption and breast cancer have been inconsistent. Moderate intake reduces the risk of coronary artery disease. Alcohol-dependent persons are also more likely to smoke and to smoke heavily.

Screening

In patients with alcohol-use disorders across a variety of settings, the questions are as follows:

1. Have you ever felt you ought to cut down on your drinking? Assesses loss of control over amount consumed.
2. Have people annoyed you by criticizing your drinking? Assesses a common social consequence and, with question 3, assesses use despite negative consequences.
3. Have you ever felt bad or guilty about your drinking? Detects negative psychological consequences.
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover? Detects use of the substance to treat withdrawal symptoms and takes advantage of the fact that withdrawal symptoms are often most distressing in the morning.

Alcohol Intoxication

Alcohol intoxication is characterized by a maladaptive mental state (e.g., increased aggressivity), accompanied by Neurologic signs, which include:

Slurred speech
Poor coordination
Unsteady gait
Impairment of attention and memory

In patients whose intoxication includes belligerence that does not respond to supportive limit-setting, lorazepam 1 to 2 mg po may be effective. If a patient becomes violent, physical restraint and intramuscular lorazepam may be necessary. Patients who continue to escalate for 1 to 2 hours after these measures are taken may be safely treated with haloperidol 5 mg intramuscularly.

Alcohol Withdrawal

Symptoms of alcohol withdrawal usually occur within 6 to 12 hours after a decrease or cessation in drinking that has been heavy and prolonged (symptoms may occur in a person with significant alcohol levels if levels are falling). Symptoms of alcohol withdrawal include:

Autonomic hyperactivity
Increased muscle tremor (may be hand, eyelids, tongue)
Insomnia; nausea or vomiting
Transient hallucination or illusions
Agitation
Anxiety
Agitation
Belligerence
Elevation in vital signs

Generalized seizures as part of alcohol withdrawal are typically nonfocal, one or two in number, and begin 12 to 48 hours after cessation of alcohol use. An alcohol withdrawal delirium (delirium tremens) occurs most commonly 3 to 5 days after cessation in drinking.

With proper management, the likelihood of progression from uncomplicated withdrawal to seizures or delirium should be greatly reduced. It is useful to systematically assess a patient, both at entry into a detoxification protocol and as she is detoxified. A simple and widely used tool for this purpose is the Clinical Institute Withdrawal Assessment–Alcohol Scale.

Addiction Research Foundation Clinical Institute Withdrawal Assessment for Alcohol

1. Autonomic hyperactivity (choose higher score, either pulse or sweating)
Pulse rate, beats/min, taken for 1 min
 - 0 <80
 - 1 81–100
 - 2 101–110
 - 3 111–120
 - 4 121–130
 - 5 131–140
 - 6 141–150
 - 7 >150
Sweating: observation
 - 0 No sweat visible
 - 1 Barely perceptible sweating, palms moist
 - 2
 - 3
 - 4 Beads of sweat obvious on forehead
 - 5
 - 6
 - 7 Drenching sweats

2. Hand tremor: arms extended and fingers spread apart for observation
 - 0 No tremor
 - 1 Not visible, but can be felt fingertip to fingertip
 - 2
 - 3
 - 4 Moderate, with patient's arms extended
 - 5
 - 6
 - 7 Severe, even with arms not extended

3. Anxiety: ask, "Do you feel nervous or anxious?"
 - 0 No anxiety, at ease
 - 1 Mildly anxious
 - 2
 - 3
 - 4 Moderately anxious
 - 5
 - 6
 - 7 Severe, equivalent to panic state

4. Transient tactile, auditory, or visual disturbances: Ask, "Have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?" "Are you more aware of sounds around you? Are they harsh? Are you hearing things that you know are not there?" "Does the light appear to be too bright? Does it hurt your eyes? Are you seeing anything that is disturbing you?":

observation

 - 0 Not present
 - 1 Present, but minimal
 - 2
 - 3 Moderate
 - 4 Frequent
 - 5
 - 6
 - 7 Hallucinations almost continuous

5. Agitation: Observe
 - 0 Normal activity
 - 1 Somewhat more than normal activity
 - 2
 - 3
 - 4 Moderately fidgety and restless
 - 5
 - 6
 - 7 Paces back and forth during most of interview, or constantly thrashes about

6. Nausea or vomiting: Ask, "Do you feel sick to your stomach or have you vomited?" Include recorded vomiting since last observation
 - 0 No nausea and no vomiting
 - 1 Mild nausea with no vomiting
 - 2
 - 3
 - 4 Intermittent nausea with dry heaves
 - 5
 - 6

7 Constant nausea, frequent dry heaves and vomiting

7. Headache: Ask, "Does your head feel different? Does your head feel full? Does it feel like there is a band around your head?" Do not rate for dizziness or light-headedness. Otherwise, rate severity.

0 Not present

1 Very mild

2

3

4 Moderate

5

6

7 Severe

Total CIWA-A Score _____

Rater's Initials _____

- The scale should be administered every 6 hours until there are at least two consecutive assessments with scores less than 10; scores above 20 may indicate the need for even closer monitoring.
- Benzodiazepines are the treatment of choice for alcohol withdrawal. Because of cross-tolerance, alcoholic patients require benzodiazepine doses that would be high for a nontolerant person.
- There are two major classes of benzodiazepines to choose from: longer-acting agents (e.g., chlordiazepoxide and diazepam), and shorter-acting agents (e.g., oxazepam and lorazepam).
- If the patient is showing increased signs of withdrawal, the dose of medication should be increased or the dosing interval decreased.
- For patients who develop hallucinations despite the use of sedative-hypnotic substitution therapy, haloperidol 2 to 5 mg may be given as an adjunct.
- In a patient with persistent tachycardia or hypertension, one should first ascertain whether the problem is inadequately treated withdrawal. Although B blockers and Clonidine have been used successfully in management of the problem, these agents may decrease vital signs and tremor without providing anticonvulsant benefits.
- Every alcoholic should be given thiamine to prevent the development of Wernicke's encephalopathy and subsequent Korsakoff's amnestic syndrome. Replacement thiamine should be given immediately. The dose is 100 mg daily. Folate 1 mg and a multivitamin are included in nutritional management.

Opiates

Most of the negative consequences of opiate use relate to the use of these drugs by injection. Although lethal overdose is possible, most morbidity and mortality is related to infectious agents and contaminants associated with injection drug use. Most new cases of HIV positivity are in women who inject heroin or are sexual partners of men who inject heroin.

Opiate Intoxication

Opiate intoxication is characterized by apathy, papillary constriction, central nervous system depression, and respiratory depression.

Naloxone HCL, a pure opiate antagonist, effectively reverses the central nervous system effects of opiates. An initial intravenous dose of 0.4 to 0.8 mg will usually reverse respiratory and central nervous system depression in 2 minutes. Naloxone must be administered cautiously because an opiate-withdrawal syndrome may be abruptly precipitated.

Opiate Withdrawal

Opiate withdrawal symptoms typically begin 6 to 24 hours after the last use of a short-acting opiate such as heroin, while they may not appear until 48 to 72 hours after longer-acting opiates such as methadone. The symptoms are:

- Dysphoria
- Nausea and vomiting
- Muscle aches
- Lacrimation or rhinorrhea
- Papillary dilations
- Piloerection
- Diarrhea
- Diaphoresis
- Yawning
- Fever
- Insomnia.

These symptoms can be assessed and graded with the Objective Opiate Withdrawal Scale:

Objective Opiate Withdrawal Scale (OOWS)

Instructions: Rate the patient on the basis of what you observe during a timed 10-minute period

Item	Score 1 Point for Each Item If	Points
1. Yawning	Present	_____
2. Rhinorrhea	3 or more	_____
3. Piloerection (observe patient's arm or chest)	Present	_____
4. Perspiration	Present	_____
5. Lacrimation	Present	_____
6. Mydriasis	Present	_____
7. Tremors (hands)	Present	_____
8. Hot and cold flashes (shivering or huddling for warmth)	Present	_____
9. Restlessness (frequent shifts of position)	Present	_____
10. Vomiting	Present	_____
11. Muscle twitches	Present	_____
12. Abdominal cramps (holding stomach)	Present	_____
13. Anxiety (observable manifestations: finger tapping, fidgeting, agitation)	Present	_____

Treatment

Methadone is a useful medication for treating opiate withdrawal, with an initial dose of 15 to 20 mg. If symptoms persist or worsen, one may give an additional 5 to 10 mg in 1 to 2 hours. Signs of withdrawal are usually well controlled by 40 mg of methadone per day. Methadone may also be given intramuscularly in 5-mg doses. Once a dose has been found which alleviates withdrawal symptoms, methadone can be gradually tapered by 10 to 20% per day to achieve full detoxication.

Clonidine suppresses many of the autonomic symptoms of opiate withdrawal due to its central nervous system effects. Clonidine is an alternative to methadone. Patients often complain of greater subjective distress with clonidine than with methadone. Clonidine may be used either as a detoxifying agent for illegal opiates, or to alleviate methadone abstinence symptoms in a patient ending methadone maintenance. The major **side effects** to monitor in a clonidine-assisted detoxification are hypotension and sedation. Hypotension, in particular may result in doses of Clonidine being held or in discontinuation of the procedure.

Clonidine Detoxification

Day	Short-acting Opiate (e.g., heroin)	Long-acting Opiate (e.g., methadone)
1	0.1 mg every 4 hrs	0.1 mg every 4 hrs
2-4	0.1 mg every 4 hrs (depending on symptoms)	0.2 mg every 4 hrs (depending on symptoms)
5-10	Reduce daily dose by 0.2–0.4 mg/day	Maintain on 0.4–1.2 mg/day
11		Reduce daily dose by 0.2–0.4 mg/day

Adjunctive medication: Oxazepam (in limited supplies) for sleep or agitation; ibuprofen for muscle or bone pain; bismuth subsalicylate for diarrhea.

Cocaine

Cocaine use is associated with morbidity in the central nervous system (e.g., psychiatric disorders, cerebrovascular disease, and seizures), the cardiovascular system (cardiac ischemia, arrhythmias, acute hypertensive emergencies), and other organ systems (e.g., intestinal ischemia), and increased incidence of sexually transmitted diseases.

Cocaine Intoxication

Intoxication with cocaine and other stimulants is characterized by:

- Anxiety
- Paranoid delusions
- Hallucinations
- Tachycardia
- Mydriasis
- Hypertension
- Perspiration
- Psychomotor agitation and dyskinesia
- Respiratory depression
- Cardiac arrhythmias
- Delirium
- Seizures.

Treatment attempts should be reassuring and straightforward in a low-stimulation environment. **Benzodiazepine**, such as lorazepam 2mg, is often effective. Benzodiazepines are preferable to neuroleptic medication, which may exacerbate cardiovascular complications (e.g., tachycardia) and Neurologic complications (e.g.,

seizures and hyperthermia). If benzodiazepines are ineffective in the management of a behaviorally escalating patient, a high-potency antipsychotic agent, such as haloperidol 5 mg may be used cautiously.

Hallucinogen [LSD, Mescaline, MDMA (“Ecstasy”), and Psilocybin Intoxication

Hallucinogen intoxication is characterized by psychological changes (anxiety, paranoia, a conviction that one is going insane), perceptual changes in an alert state (e.g., “intensification” of perception, depersonalization, hallucination, synesthesia), and mydriasis and tachycardia. Hallucinogen intoxication can often be managed using a “talk-down” method focused on reassuring the patient that the distressing experiences are drug-induced, temporary, and will be followed by full recovery. If medication is necessary, benzodiazepines will provide welcome sedation and reduction of anxiety.

The hallucinogen-perception disorder (“flashback”) involves the transient recurrence of perceptual abnormalities that are reminiscent of hallucinogen intoxication in an individual who used hallucinogens in the past. These perceptual episodes may be triggered by drug use (e.g., cannabis), anxiety, or fatigue. Flashbacks may cause much distress, especially if there was a history of distress during the original period of intoxication. Because flashbacks are so brief and usually remit spontaneously, treatment generally involves no more than supportive reassurance. If anticipatory anxiety about flashbacks is particularly intense, benzodiazepines may be useful in carefully selected patients.

The Effectiveness of Substance Abuse Treatment

The most stringent criterion for success is complete abstinence. What has been shown is that treatment consistently leads to *reduction* in drug use if not complete abstinence, better general health, improved social function, and reduced threats to public health and safety caused by drug abuse (e.g., criminal behavior). Limited research has shown that women-only programs lead to greater decreases in alcohol use and increases in social functioning compared with mixed-gender programs. Women in treatment for illicit drug dependence are more often coerced into treatment by legal sanctions than are alcohol dependent women. Drug-using significant others make a successful outcome harder to achieve, and a focus of treatment is to establish drug-free social networks.

Summary

The primary care physician has the opportunity to reduce premature morbidity and mortality by educating patients about risks and primary prevention, being vigilant about detection of affected patients, helping patients to become involved in treatment, and offering support and assistance for these women.