

## **CHEMICAL DEPENDENCY**

**When you complete this module you will be able to:**

1. Provide a basic definition of chemical dependency.
2. Identify 5 drugs of abuse.
3. Identify three signs/symptoms of acute overdose from these drugs.
4. Identify the part of the brain and the neurotransmitter that are involved in the development of chemical dependency.
5. Identify one drug that can be used for alcohol dependency, and one that can be used for heroin dependency.

### **Incidence and Impact of Chemical Dependency**

Chemical dependency, substance abuse, addiction – the destructive use of psychoactive substances has many names, but everyone agrees that it is an enormous problem, not only in the United States, but worldwide. The statistics are staggering:

- The White House Office of National Drug Control Policy conducted a survey and found that between 1988 and 1995, Americans spent over \$57 billion on illegal drugs of abuse.
- The Lewin Group for the National Institute on Drug Abuse found that in 1992, the estimated total economic cost of alcohol and drug abuse was \$245.7 billion. This estimate included the cost for substance abuse treatment, costs associated with decreased work productivity and lost job time, costs associated with drug-related crime, and expenditures for social welfare programs.
- The Drug Abuse Warning Network (DAWN) estimated in 2005 that there were 816,696 emergency department visits associated with illicit drug use, 492,655 emergency department visits associated with alcohol use, and 598,542 emergency department visits associated with non-medical use of prescription drugs.
- The rates of morbidity and mortality related to alcohol abuse are enormous. It has been estimated that there are over 100,000 deaths each year caused by alcohol, making it the third leading cause of preventable mortality CDC
- According to the Centers for Disease Control, cigarette smoking is responsible for approximately 438,000 deaths in the United States each year.
- The 1996 National Household Survey on Drug Abuse estimated that there were 13 million users of illicit drugs in the United States, 10% of all Americans abuse, or are dependent on alcohol, and 25% of all Americans smoke.
- The 2002 National Survey on Drug Use and Health found that approximately 46% of all Americans – 108 million people – had tried an illicit drug at least once in their lives.
- Deaths from overdose have increased by 540% since 1980.

And the numbers go on and on. Chemical dependency (This term will be used for the rest of this module) is common in the United States (and there is strong evidence that it is

on the rise<sup>1</sup>, and every nurse, at some time in his/her career, will care for a patient that is chemically dependent.

### **What Defines a Person Who is Chemical Dependent?**

There are many definitions of chemical dependency. A compilation of the most popular ones might be: a reoccurring compulsion to obtain and use psychoactive substances despite the short-term and long-term deleterious consequences. The one that will be used here is: *chemical dependency is defined as compulsive drug use despite negative consequences*. Perhaps a more useful definition for *identifying* a person who is chemically dependent comes from the psychiatric literature. The Diagnostic and Statistical Manual (DSM) is the diagnostic classification system for psychiatric disorders that was developed by the American Psychiatric Association.<sup>2</sup> According to the DSM, a person can be considered dependent if three or more of the following behaviors are present:

1. Tolerance to a psychoactive substance.
2. Withdrawal signs and symptoms when the substance is withheld.
3. The substance is often taken in larger amounts or over a longer period of time than was intended.
4. Unsuccessful efforts, or a persistent desire, to cut down or control substance use.
5. A great deal of time is spent in activities necessary to obtain the substance or recover from its effects.
6. Important social, occupational, or recreational activities are given up or reduced because of substance use.
7. Continued substance use despite knowledge of having persistent or recurring physical or psychological problems that are likely to be caused or exacerbated by the substance.

Regardless of the definition, the person who is chemically dependent has a constant craving for, and preoccupation with, the drug, he/she uses more of the drug than is necessary to become intoxicated, he/she has a decreased interest in, and motivation for, normal life activities, tolerance to the drug is developed, and withdrawal signs and symptoms occur if the drug cannot be obtained.

### **What are the Drugs of Abuse?**

People can become dependent on a wide variety of drugs, but certain drugs appear to have very strong addictive potential, serious medical and/or legal complications associated with their use, and cause a dependency that is particularly difficult to overcome. Some are illicit (amphetamines, cocaine and heroin), others are legal (alcohol, sedative/hypnotics) but all can be dangerous.

#### **Alcohol**

Aside from tobacco, alcohol is the most commonly abused psychoactive drug in our society. The exact mechanism by which alcohol is intoxicating is not completely

understood, but many authorities believe it comes from increasing the effects of the inhibitory neurotransmitter *gamma aminobutyric acid* (GABA) at GABA receptors and inhibiting the effect of the excitatory neurotransmitter *glutamate* at *N*-methyl-*D*-aspartate (NDMA) receptors.<sup>3</sup> (Note: GABA is involved in the action of several drugs of abuse. GABA acts by binding to GABA receptors in certain parts of the brain. When it binds to these receptors, chloride moves into the cell or potassium moves out, hyperpolarizing the cell and making it less able to function). Alcohol intoxication is marked by slurred speech, incoordination, impaired judgment, and decreased inhibitions. In large doses, it is a central nervous system and respiratory system depressant, and causes hypotension. Long-term use is associated with liver disease, heart failure, brain atrophy, gastritis and ulcers, anemia, and various cancers; it is particularly dangerous to the unborn child.

### Amphetamines

Amphetamines act by directly stimulating the adrenergic nerve endings and causing a release into the synapses of norepinephrine and dopamine, neurotransmitters that stimulate the peripheral  $\alpha$  receptors and  $\beta$  receptors.<sup>4</sup> Acute intoxication causes anxiety, diaphoresis, tachycardia, and hypertension. More serious effects are seizures, hallucinations, psychosis, dysrhythmias, myocardial ischemia, hyperthermia, and rhabdomyolysis. Long-term effects include vasculitis, cardiomyopathy, pulmonary hypertension, aortic and mitral regurgitation, and permanent damage to the dopaminergic and serotonergic neurons.

### Cocaine

Cocaine has many complex actions, but its effect can best be defined as a hyperadrenergic state that occurs through its effect on the neurotransmitters epinephrine and norepinephrine. Acute intoxication from cocaine produces euphoria, agitation, tachycardia, hypertension and an increase in respiratory rate. It can also produce an enormous list of serious medical complications (stroke, myocardial infarction, bowel infarction, aortic dissection, arrhythmias, hyperthermia, rhabdomyolysis, and pneumothorax are among these).<sup>5</sup> Long-term effects of cocaine abuse include cardiomyopathy, increased atherosclerosis, left ventricular hypertrophy, endocarditis, impotency, hypertension, weight loss, malnutrition, and behavior that can be characterized as virtually identical to personality disturbances, paranoia, and schizophrenic syndromes.

### Heroin

Heroin acts by stimulating opioid receptors in the brain. When these receptors are stimulated, the cells become hyperpolarized (thus becoming less active and less able to respond to stimuli), there is a reduced capacity to produce cAMP, and calcium ion channels become closed.<sup>6</sup> The result is opioid intoxication: central nervous system and respiratory depression, lowered blood pressure, euphoria, miosis, nausea and vomiting, decreased peristalsis, and analgesia. In overdose, coma, respiratory arrest, pulmonary edema, profound hypotension, and hypoxic seizures can be seen. Long-term effects of opioid abuse include heart valve infections, infectious diseases (e.g. hepatitis A and C,

and HIV) that occur with IV use, arthritis, collapsed and sclerotic veins, malnutrition, and a depressed immune system.

### Sedative/Hypnotics

This is a large group of drugs that includes the most commonly abused, barbiturates, benzodiazepines. Barbiturates and benzodiazepines work by binding to specific barbiturate and benzodiazepine receptors. This enhances the activity of the inhibitory neurotransmitter GABA, which in turn increases the frequency or duration of the opening of chloride channels and hyperpolarizes the cell.<sup>7</sup> The clinical effects of these drugs include central and respiratory system depression, ataxia, confusion, slurred speech, and impaired coordination. When taken in dangerous doses, coma and respiratory arrest are possible. Long-term effects are tolerance, impaired memory and coordination, confusion, and disorientation.

### Causes of Chemical Dependency

Chemical dependency could be defined as compulsive drug use despite negative consequences. But why do some people make the acquisition and use of psychoactive drugs the focus of their lives? And why do they do it despite the obvious emotional, personal, social, medical, and societal damage that can occur? In short, why do people become chemically dependent? And why are other people seemingly immune?

There has been a vast amount of effort and research directed towards uncovering the root cause(s) of chemical dependency. Biological, psychological, and sociological reasons for this affliction have all been advanced, and strong arguments can be made for each of these as major contributors to the genesis of, and continued presence of chemical dependency. Current thinking is that there is no one cause of chemical dependency and that chemical dependency is a brain disease that is behaviorally expressed within a social context. However, although there has been much research, more work needs to be done. Much of the published literature involves animal experiments or a single drug, and it is clear that the true basis for chemical dependency is still not known.

### Genetics and Chemical Dependency

Much of the data on the contribution of genetics to chemical dependency comes from research into alcohol (However, there is evidence for a genetic basis for chemical dependency on other drugs) and this data is strong. Research on families has shown that children of alcoholics have a 3- to 4-fold risk for developing alcoholism, and studies of twins appear to support a genetic basis for alcoholism, as do adoption studies (twins raised by different families).<sup>8</sup> Not surprisingly, these sociological studies have generated intense interest in finding an “alcohol gene” or biochemical markers that are responsible for the development of alcoholism. Some people feel that these risk increase may simply reflect shared socioeconomic and developmental factors, and unfortunately, at this time there is no definitive “smoking gun” that clearly implicates genetics as a root cause of chemical dependency. But there are indicators that genetics may play an important role, and some sources place the contribution of genetics to chemical dependency at 40-60%.<sup>9</sup> For example, polymorphisms of the gene encoding the  $\mu$  opioid receptor correlate with an

increased likelihood of heroin abuse,<sup>10</sup> and a polymorphism of the neuropeptide Y gene has been correlated with increased alcohol consumption.<sup>11</sup> However, compared to the research conducted, there are relatively few family, twin, and adopted child studies that might shed light on the contribution of genetics to chemical dependency on other drugs of abuse. It is most likely that chemical dependency is genetically complex and there are many genes involved.

### Socio-cultural Influences and Chemical Dependency

American society has been in flux for the past several decades and these changes have been strongly associated with chemical dependency, especially in large urban areas. Employment opportunities for unskilled or modestly skilled workers have decreased dramatically as a result of a serious decline in manufacturing and labor-intensive industries in large cities that can provide jobs for these disenfranchised people. Affordable housing is out of reach for many Americans and funds for subsidized housing have been cut dramatically since the 1980s. There have also been large shifts in family structure, and minority populations have been especially affected by this. Many of these families are headed by a single woman and this has been strongly correlated with poverty and other social pathologies. The traditional social services “safety net” has also been seriously eroded. All of these factors contribute to a population that is poor, undereducated, lives in substandard housing, and is serviced by substandard institutions – a breeding ground for substance abuse.<sup>12</sup> The result is a social milieu in which substance abuse is relatively common, and this is a well-recognized risk factor the development of chemical dependency.

### Psychological Influences and Chemical Dependency

There have been many attempts to discover and outline the “addictive personality.” However, despite all these efforts, finding and defining the addictive personality has not been successful. People who are chemically dependent are diverse; there is no one psychological profile that accounts for the enormous variety of addictive behaviors. However, there are some clearly recognized personal risk factors that are strongly associated with the development of chemical dependency:<sup>13,14.</sup>

- History of sexual and/or physical abuse.
- Early onset of experimentation with psychoactive drugs.
- Low self-esteem.
- A propensity for risk-taking behavior.
- Impulsivity.
- Antisocial behavior.
- Male gender.
- Mental disorders such as schizophrenia, attention-deficit hyperactivity disorder, depression, anxiety, obsessive compulsive disorder, and bipolar disorder.
- Perfectionism.
- Inability to delay gratification.

## Chemical Dependency: The Process

It is clear that chemical dependency is a multi-factorial process, and all the nuances of how biology, psychology and sociology contribute to it have not been sorted out. However, although we are not entirely clear about what causes chemical dependency, there is very strong evidence about how chemical dependency occurs in the brain. It involves several areas of the brain and different neurotransmitters, but perhaps the most important part of the brain involved in chemical dependency is what may be called the *brain reward system*.

Drugs of abuse stimulate areas of the brain that are involved with very pleasurable survival behaviors such as eating, sex, and bonding. When these areas of the brain (there are several, but the mesolimbic pathway is considered to be the most important) are stimulated, they receive a surge in the neurotransmitter dopamine, and we experience pleasure. This occurs either by the drug stimulating a direct release of dopamine or preventing its breakdown. (Dopamine is a neurotransmitter that is found in the areas of the brain that control emotion, motivation, and pleasure) Unfortunately, drugs of abuse cause a much higher brain dopamine level than do natural rewards such as food or sex.

This surge in dopamine is especially high – as is the intensity of the experience – when it is caused by drugs of abuse and the information about that experience gets stored and remembered: the drug is associated with pleasure. However, with succeeding exposures to these drugs, the dopamine surge become less and less, and the dopamine levels go lower and lower below normal baseline as less is produced. As well, there is a reduction in dopamine receptors. The result is that the person who is chemically dependent gets less of a “high” each time he/she use the drug and he/she feels less happy when they are not intoxicated – which leads to more drug seeking, and a vicious cycle because the chemically dependent person has now developed a tolerance.<sup>15</sup> Addicts have a term that is called “chasing the dragon.” It means that there is no high like the first high, and science is proving that to be correct. (Note: There is also evidence that the faster the increases in dopamine concentration in the brain – which occurs with early, heavy drug use and with certain drugs such as cocaine – the stronger the reinforcing effect of the drug). Even worse, long-term use of addictive drugs produces long-lasting changes in brain structure that make the person who is chemically dependent susceptible to relapse months and years after successful rehabilitation and abstinence – which explains the significant relapse rate among people who are chemically dependent. As well, these changes in brain structure make the brain less able to react to the “weaker” pleasure stimuli such as food, sex, bonding, etc.

However, it has been shown that increases in brain dopamine concentrations caused by drugs of abuse happen to people who become addicted and to people who do not, so the short-term increase in dopamine cannot explain the development of chemical dependency. It may be that there is a difference in the dopamine circuits between those who are chemically dependent and those who are not. The chemically dependent person may have a particularly “weak” circuit that doesn’t respond to normal pleasurable activities so that individual needs strong levels of stimulation to feel good, and there is supporting evidence for this idea in the literature. As well, this finding has been tentatively confirmed by a study that showed that subjects who did not abuse alcohol but came from alcoholic families had higher levels of dopamine receptors than people without this

family history.<sup>16</sup> What is also possible is that people who become chemically dependent have a biological susceptibility to drugs of abuse – their brains react to drugs by decreasing the numbers of dopamine receptors and decreasing the amount of dopamine released, thus inhibiting their ability to feel pleasure. This may not happen to people who don't become chemically dependent.

## TREATMENT

Not surprisingly, treatment for a process as complex as chemical dependency is itself enormously complex. There is a vast array of treatment approaches and at this time, there is no universally accepted “best” way to treat chemical dependency. However it *is* clear that early interventions appear to be more successful: if the chemically dependent person can be helped when he/she is still in the early teen years, the chances for success are much greater. Also, the treatment for chemical dependency must be a fluid process, able to change over time. The chemically dependent person, at various times, will have a need for detoxification, rehabilitation, and continuing care, and there are a myriad of personal, social, legal, and medical issue to address.

### Detoxification

Detoxification is the first step in treating chemical dependency, and it involves stopping the use of the drug(s) and managing the signs and symptoms of *withdrawal*. Treatment of withdrawal will depend, of course, on the abused drug.

- Alcohol withdrawal: The pathophysiology of alcohol withdrawal is not completely understood, but the inhibitory neurotransmitter GABA is thought to be involved, as chronic alcohol use downregulates GABA receptor function. Also, alcohol causes alpha-2 receptors to inhibit norepinephrine release; withdrawal of alcohol then results in hyper-excited neurons.<sup>17</sup> Withdrawal signs and symptoms from alcohol can occur as soon as 4-6 hours after the last drink, but the onset may be delayed by 7-10 days. Alcohol withdrawal can present some very serious medical problems. The signs and symptoms can be mild (anxiety, irritability, depression, fatigue), moderate (diaphoresis, insomnia, elevations in heart rate and blood pressure), or severe (severe confusion and hallucinations [delirium tremens], fever, convulsions). Treatment consists of supportive care, fluid replacement when necessary, providing a safe environment, correcting electrolyte abnormalities, and administering a multivitamin and thiamine. Benzodiazepines enhance the activity of GABA and are the first-line drug therapy. Other medications that can be used are beta-blockers,  $\alpha$ -blockers such as clonidine, anticonvulsants (e.g. carbamazepine), and neuroleptics.<sup>18,19</sup> Antipsychotics, e.g. haloperidol, can lower the seizure threshold and should be used with caution.
- Amphetamine withdrawal: There is no clear-cut evidence that explains the signs and symptoms of amphetamine withdrawal. Patients suffering from amphetamine withdrawal experience anxiety, nausea, palpitations, and irritability. There are no current approved methods for treating amphetamine withdrawal,<sup>20</sup> but it is not

- generally considered to be dangerous and can be managed using benzodiazepines and symptomatic/supportive care.
- Benzodiazepine/barbiturate withdrawal: Although many cases of benzodiazepine withdrawal are relatively benign, withdrawal from these drugs can be severe, and fever, tachycardia, hypertension, and seizures are not unknown.<sup>21</sup> The classic approach to treating benzodiazepine withdrawal has been to use gradually tapering doses of benzodiazepines – either a fixed dose or a dose based on symptoms – but there have been failures using this approach.<sup>22</sup> Tricyclic antidepressants, propranolol, progesterone, and buspirone have not proved effective, but the anticonvulsant carbamazepine may help.<sup>23</sup>
  - Cocaine withdrawal: The effects of cocaine withdrawal are thought to be due to a decreased release of dopamine and serotonin. (Serotonin is a neurotransmitter that affects mood, appetite, body temperature and sexuality) Cocaine withdrawal signs and symptoms include depression, fatigue, agitation, and general malaise, and withdrawal from this drug is not considered to be medically dangerous. It is generally managed with symptomatic and supportive care. There has been some experience in managing cocaine withdrawal using modafinil, a central nervous system stimulant that is currently used to treat narcolepsy.<sup>24</sup> Some clinicians have reported success in treating cocaine withdrawal using propranolol.<sup>25</sup>
  - Heroin withdrawal: Heroin withdrawal is uncomfortable (nausea, vomiting, diarrhea, anxiety, palpitations) but not dangerous. It is generally treated with symptomatic/supportive care, along with drugs such as the synthetic opioids methadone and buprenorphine,<sup>26</sup> and the  $\alpha$ -antagonist clonidine.<sup>27</sup> In recent years there has been much attention focused on ultra-rapid opioid detoxification. In this procedure, general anesthesia is used and the opioid antagonist naltrexone is administered while the patient is unconscious. This approach is alluring, but it is expensive, there are significant potential adverse effects, and there is no evidence that it is more effective than far less risky approaches.<sup>28</sup>

### **Pharmacologic Therapy for Chemical Dependency**

Medication therapy can be a valuable adjunct when treating the patient who is chemically dependent. Some drugs of abuse (alcohol and heroin) respond well to medications and there are approved and successful treatment regimens. Unfortunately, there has been little success in finding a pharmacologic for managing dependency on amphetamines, benzodiazepines/barbiturates, and cocaine.

There are many medication options available for treating a chemical dependency to alcohol. The classic drug of choice has been *disulfiram*.<sup>29</sup> The first step in the metabolism of alcohol is its breakdown to acetaldehyde, which is then broken down to acetic acid and water. Disulfiram interferes with this step and there is an accumulation of acetaldehyde which produces chest pain, nausea, vomiting and other effects. *Naltrexone* has also been used for alcohol dependency (alcohol may activate endogenous opioid systems), and the success rate in some studies is encouraging.<sup>30</sup> *Acamprosate*, an NMDA glutamate antagonist, has recently been approved for the use in alcohol dependency and but studies have not proven its effectiveness when compared with placebo.<sup>31</sup> *Carbamazepine* has also been used successfully, although the exact nature by which it decreases alcohol

consumption is not known, and there has been some success using other anticonvulsants such as *valproic acid* and *topirimate*.<sup>32</sup>

Treatment for opioid dependence has traditionally relied on a synthetic opioid, *methadone*.<sup>33</sup> Methadone has a much longer duration of action than other opioids, thus eliminating the rapid shifts between “highs” and the absence of an opioid. It does not cause euphoria, sedation, or analgesia, it blocks the effect of street drugs such as heroin, and it has been clearly shown that methadone can be effective in treating a chemical dependency to heroin. *Buprenorphine* is a *mu* opiate receptor partial agonist and clinical studies have shown that it can reduce the abuse of illicit opiates and reduce cravings.<sup>34</sup> Because it is a partial agonist, its abuse potential is lower than that of other opiates, and it separates from opioid receptors very slowly, making it possible to administer the drug just three times a week. It can also be combined with *naloxone*, an opioid antagonist; this combination blocks the euphoric effects of the buprenorphine, thus decreasing potential for abuse while still occupying the opioid receptors, thus reducing craving.<sup>35</sup>

At present there are no approved pharmacologic treatments for cocaine dependency, but there has been much research in this area, and there are some drugs that show promise. Amantadine and disulfiram, and selegiline (all of which affect, to some degree, the dopaminergic system involved in the process of cocaine dependency) have all shown promise in reducing use. However, studies involving these drugs have all been small and short-term. The anticonvulsants valproic acid, topirimate, and tiagabine have been used to successfully decrease cocaine use, but again, the studies are small and short-term. The antispasticity drug baclofen was shown in one study to reduce cocaine use. Gabapentin in specific doses may be helpful. Cardiac drugs that affect the adrenergic system such as  $\beta$ -adrenoreceptor antagonists (e.g. labetalol, carvedilol) have shown promise.<sup>36</sup>

### **Psychological Treatment for Chemical Dependency**

There is a vast and bewildering array of psychological approaches for treating chemical dependency, and given the diverse multitude of treatments, it is not surprising that there is no consensus as to what is the “best” psychological approach for treating chemical dependency. Also, there are many methods that are widely used that have little supporting scientific evidence. Add to that the fact that research has indicated that many of the therapeutic approaches have similar success rates and the situation becomes confusing. However, there are common aspects of successful treatments. The best ones are evidence-based treatments, and the practitioners have received extensive training (There is an organization of physicians who specialize in treating chemical dependency, the American Society of Addiction Medicine).

But although there are many ways to address the psychological needs of the chemically dependent patient, *behavioral therapies* are most often used. Behavioral therapies are a group of approaches characterized by a concern with the patient’s behavior. The therapist focuses not on past events that may have led to chemical dependency, but what is currently occurring in the patient’s life. There are different behavioral therapies: cognitive behavioral therapy has been proven to work, has been thoroughly tested and there is empirical evidence for its success.

- Cognitive behavioral therapy: This therapy is grounded in social learning theories and operant conditioning. In this process, the patient identifies feelings, thoughts, and situations that are associated with using the substance of abuse. The patient sees the thinking – the distorted, inaccurate, maladaptive thinking – that is the underpinning of negative emotions that lead to their behaviors of chemical dependency, and the therapist helps him or her to replace these with realistic, life-affirming beliefs. Thus, cognitive behavioral therapy has two parts. The first is a functional analysis, and the second is skills training. It provides the chemically dependent patient with motivation for abstinence, teaches coping skills, changes reinforcing contingencies, and trains interpersonal skills that allow the patient to build a support network. The treatment is a one-on-one encounter with a trained therapist and 12-16 weekly sessions are typically scheduled. It is done on an outpatient basis (typically) because chemical dependency is intimately connected with the circumstances of the patient’s life, and this gives the patient an immediate chance to try new coping skills and get immediate feedback on their effectiveness. Cognitive behavioral therapy can be successfully combined with pharmacological treatment and group, family, and/or couples therapy. It is unique in that it provides a functional analysis of chemical dependency and concrete coping skills are taught and practiced during sessions.<sup>37</sup>

Of course, cognitive behavioral therapy is not the only way to address the psychological and emotional concerns of the patient with chemical dependency. *Contingency management* may be valuable. In this technique, patients receive rewards for specific behavioral goals, and there is a lot of very good empirical support for its effectiveness. However, it should also be noted that there is evidence that the effects tend to lessen when the contingencies are removed, and that this approach involves a lot of time and money. *Motivational interviewing* is a focused, goal-directed technique that helps patients explore and resolve ambivalence and helps the patient towards an acceptable goal. It has been successfully used in treating chemical dependency on alcohol and research has shown significant effects which are very durable. The therapist tries to understand the patient’s frame of reference, expresses acceptance and affirmation, and reinforces the patient’s *own* concerns, desires, and intentions for change. Finally, couples and family therapy can be used, and there is much research that indicates these treatments can be effective in adult and adolescent patients with chemical dependency.

## **NURSING CARE OF THE CHEMICALLY DEPENDENT PATIENT**

Nursing care of the patient who is chemically dependent is complex. Nurses may encounter these patients during acute intoxication, the withdrawal phase, or during the process of rehabilitation and the patient’s ongoing attempts to maintain a drug-free state. During these specific periods, the goals of nursing care will be very different and the needs of the patient will be very different, so it is difficult to provide a “one size fits all” approach.

This problem is exacerbated by the fact that nurses often receive little information about the nursing care of the patient with chemical dependency during their formal education. There is almost nothing in the nursing literature on the topic, and as the field

of addiction medicine is relatively new, standards of care are still being formed. Also, nurses – and other health care personnel – also frequently report that they do not like caring for the patient with chemical dependency, and they have negative attitudes towards them. This is not surprising. The typical health care paradigm is that the patient seeks help for a health problem that is out of his/her control and is willing to cooperate willingly with the recommendations of caregivers. However, many patients with chemical dependency do not fit this paradigm: quite the opposite. As a result, nurses caring for them experience impatience, resentment, anger, and the feeling that other patients with “legitimate” health care concerns are being neglected. Chemical dependency carries a large negative stigma in our society, and many nurses feel that the patient with chemical dependency is simply a “bad person.” Nurses often wonder: why can’t they just stop?

The solution is education. Nurses must be taught that chemical dependency is a chronic disease, and that the health issues of these patients *are* legitimate, albeit at times confusing and unfamiliar. They need specific information about drugs and treatments. They must familiarize themselves with specific nursing diagnoses (e.g., ineffective health maintenance, anxiety, risk for injury, etc.) that will be used when caring for these patients. And they must also cultivate the following characteristics that have been found to be important for successful nursing care of someone with chemical dependency:

- Hope and optimism: Given the seemingly self-inflicted nature of chemical dependency and the high relapse rate, it can be a challenge to remain hopeful and optimistic, but these attitudes are essential.
- A non-judgmental attitude: It is very easy to form judgments about the patient with chemical dependency, to view them as weak or lacking in morals and/or self-control.
- A low need to control the patient.
- The ability to engage the patient but still detach.
- Patience and tolerance: chemical dependency is a chronic disease and relapses are very common.
- Flexibility.
- Recognize that people with chemical dependency often have co-occurring psychiatric disorders that must be treated.

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