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Dual Diagnosis Considerations: The Chemistry of Addiction Inservice Training 2003

I) ADDICTION AND BRAIN CHEMISTRY

The brain has natural feel-good chemicals (called neurotransmitters) that pass signals to control our moods and keep us feeling well. Alcohol and other abused drugs fool the brain into releasing too many of the feel-good neurotransmitters at once. As a result, the user feels an exaggerated euphoria, a high. In the non-addicted, casual user, brain functioning and neurotransmitter levels return to normal shortly after the high wears off.

In the addicted user's brain, however, long-term drug/alcohol use has permanently altered the brain's chemical functioning.

With an alcoholic/addict, two things happen increasingly more often after getting high:

- 1) Loss of judgment (which leads to loss of control) during and after drug/alcohol use
- 2) Depression — the “crash” — comes on quicker and more intensely after drug/alcohol use is stopped (due to artificially rapid neurotransmitter depletion)

Altered brain chemistry causes both of these effects. When drugs/alcohol hit the addicted brain, the circuits and signals that control mood and judgment are disrupted. The abuser increasingly loses control of their using, and the accompanying bad judgment prompts them to use more to ward off the withdrawal symptoms (dysphoria, depression). This, in turn, works the brain's chemical factory harder to produce more feel-good neurotransmitters (digging deeper into limited future reserves).

Over time, the only way an alcoholic/addict can feel good is by getting high. Eventually, the abuser needs to use simply to feel normal. Ultimately, the alcoholic/addict's brain chemistry is so disrupted they are unable to feel better no matter how much they ingest. Most recovering alcoholics/addicts can tell you about “when the alcohol and [other] drugs stopped working.”

Hence, the Addictive Cycle of a Progressive Disease

- 1) Drugs/alcohol produce a high
- 2) Brain is fooled into releasing too many feel-good neurotransmitters, too fast
- 3) High wears off — natural feel-good brain chemicals are used up
- 4) Dysphoria, depression, anxiety set in
- 5) Altered judgment prompts user to use again — despite problems — in order to feel better
- 6) User increasingly loses control of amount used and other behaviors
- 7) Brain is fooled again, producing increased harm to brain chemistry structure, mood, and judgment
- 8) Cycle begins again, intensifying each time

Addiction is a progressive disorder. Simply put, if left untreated, it continues to get worse. This is why treatment intervention by loved ones is important. If we wait until the alcoholic/addict hits rock bottom (as was often the advice in past decades), it might be too late.

Brain Repair Requires Sobriety

The brain can repair itself and become healthy again, though it will never return to normal (that is, the alcoholic/addict can never return to being a social drinker/user again). When we frame addiction as a disease, this actually implies a *chronic* disease, like diabetes. If the patient can make certain lifestyle and health habit changes, he or she can manage the disorder and still live a healthy, happy life.

This is why with diabetes or addiction, there is no *cure*, only *recovery* or *disease maintenance*. There is no cure that will allow a diabetic to stop their medication and eat anything they want. And there is no cure that will allow an alcoholic to drink socially again, or a drug addict to use recreationally again.

As diabetes problems are triggered by poor health habits resulting in a chemical imbalance, so, too, is chemical dependency. The addicted brain will always be a time bomb waiting to blow with as little as one drink or drug use. This can happen no matter what the alcoholic/addict's original drug of choice was and no matter how long the alcoholic/addict has been clean and sober.

Whether or not one believes in the disease theory of addiction, in practice, addiction and recovery function exactly like chronic disease and maintenance do.

Remember: Brain Chemistry Controls Mood and Judgment

After an alcoholic/addict regains good judgment through sobriety, it can be lost by one slip. This loss of judgment may be instant or very gradual, but it is nearly always inevitable.

Altered judgment, possibly caused by one slip, allows the alcoholic/addict to tell herself,

- 1) "One more won't hurt"
- 2) "My problem wasn't really that bad"
- 3) "I can control it now"
- 4) "I'll quit tomorrow"

Altered judgment allows the alcoholic/addict to discount everything he learned while sober and in recovery. It could take one day or six months to revert to his old patterns of addictive use and harmful behavior. But recovering addicts and alcoholics will tell you it is nearly always inevitable.

II) RECOVERY AND BRAIN CHEMISTRY

In early recovery (early sobriety), the alcoholic/addict's moods take time to stabilize. In the first few weeks or months, they likely will experience depression, anxiety, or irritability much of the time while the brain waits for healthy neurotransmitter production to resume.

Often after several weeks or months of sobriety, recovering alcoholics/addicts may have a so-called *honeymoon* period in which they feel great. This is caused by their brain bouncing back to healthy chemical functioning, and temporarily overcompensating — overproducing certain feel-good neurotransmitters that had been depleted in the brain over long periods of addictive alcohol and other drug use.

This can be a dangerous time for an alcoholic/addict's recovery and sobriety. The exaggerated good feeling can fool them into believing their addiction "wasn't that bad" (otherwise, they couldn't have recovered so fast). They start to think that maybe they can handle their drugs and alcohol now. Many patients leave treatment during this time.

After the honeymoon period, alcoholics/addicts must settle in for the serious work of long-term recovery. This can be a trying time for recovering persons and their families and loved ones. Personalities are being repaired, and relationships are being re-examined. Because their judgment has been impaired for so long and takes time to come back, the self-help/counseling community promotes this guideline for the recovering person: If possible, try not to make any important, life-changing decisions until you have one year of sobriety.

It's also important for the family to receive education about addiction — possibly through self-help groups or counseling for themselves — if they hope to make it through this together. Most families that do stay together report a positive transformation. It almost always gets better if

sobriety can be maintained, so it's important to hang in there (unless, of course, abusive treatment is occurring in the family).

Ultimately, after six months or a year, alcoholics/addicts' emotions begin to stabilize into normal cycles of ups and downs. The length of time varies, according to the person and the severity of their addiction.

It's a myth that alcoholics/addicts must hit an absolute rock bottom before they have a moment of clarity. Some have low-bottoms, and some have high-bottoms. And it is possible for loved ones to intervene upon an alcoholic/addict's self-destructive behavioral pattern before he or she hits their bottom. Many people are fortunate enough to enter recovery before they have lost everything.

The Key is Learning How to Deal Naturally With Mood Swings

Some or all of these methods have worked for many recovering alcoholics/addicts:

- 1) Exercise
- 2) Meditation/prayer
- 3) Stress relaxation
- 4) Staying even-keeled — don't allow yourself to get too far *up*, nor too far *down*
- 5) Listening to music
- 6) Social interaction
- 7) Support groups
- 8) Sharing feelings with friends and loved ones
- 9) Counseling

Chemical Dependency Is a Combination of a Physical Disease Process (altered brain chemistry) Complicated by an Emotional (Thinking) Disorder

In the late 1930s, the Alcoholics Anonymous (AA) "Big Book," without the benefit of modern scientific knowledge, pegged the concept of addiction accurately: "***an allergy of the body and an obsession of the mind.***" Alcoholics/addicts' bodies simply do not handle alcohol and other drugs the way non-addicted bodies do.

Chemical Dependency is also known as a disorder of the feelings. The physical and emotional aspects of chemical dependency are forever intertwined and equally important to recovery.

The Emotional / Physical Addictive Cycle

- 1) Alcoholic/addict starts using (for a variety of reasons)
- 2) Brain disorder begins to develop (altered brain chemistry)
- 3) Alcoholic/addict feels *down*, so they use to feel *up*, even though using causes problems (impaired judgment)
- 4) Alcoholic/addict starts to feel guilt about using and other behavior
- 5) Alcoholic/addict uses again to medicate or numb their guilt and depression
- 6) Guilt and depression return stronger each time they sober up
- 7) Alcoholic/addict denies his or her problems and their causes, and uses again

Recovery Components — Preventing the Slip

- 1) **Abstinence** — the physical side of addiction must be treated with abstinence, which restores proper chemical (and, therefore, mood) balance
- 2) **Emotional Self-Examination** — the emotional side of addiction must be treated with education; the alcoholic/addict must learn how to deal with and process negative feelings rather than shoving them down inside, which ultimately leads to self-medication with alcohol and other drugs of abuse

Emotional self-examination is a long-term, lifelong process; though it does get easier with practice and regular maintenance. Stuffing feelings is a luxury recovering alcoholics/addicts can no longer afford. They need to air out resentments and hurt feelings as they come up. Their sobriety and their new, good life depend on it.

When the recovering person stops dealing with his feelings (usually due to lack of effort), the relapse process starts. The relapse process is the pattern of thinking that results in the *slip*. The slip is now almost inevitable unless the recovering person confronts his own negative, destructive thinking.

After the Slip

When alcoholics/addicts use again, even once, after a period of sobriety, they trigger their diseased brain chemistry, which in turn triggers,

- 1) Loss of judgment
- 2) Depression

Any chemical abuse can start the addictive cycle all over again, no matter how long the recovering person has been clean and sober. Some experts believe the abuser picks up exactly where he left off the last time he was abusing alcohol or other drugs.

Many alcoholics/addicts rationalize at some point that they can control their recreational drug/alcohol use if only they avoid the specific substance that caused their initial problems.

Either one or both of two things will happen — immediately or many months down the road — if this thinking persists:

- 1) The alcoholic/addict will develop a new addiction
- 2) The alcoholic/addict will revive her old addiction

Treatment Types

The treatment that has proved to work best for most chemically dependent people is involvement in a sobriety support program such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA), Rational Recovery (RR) (no 12-steps), Secular Organizations for Sobriety (SOS) (for atheists and agnostics), etc. Some people may require a period of inpatient chemical dependency treatment to stabilize their physical health and attain an initial period of abstinence. Some alcoholics/addicts may benefit from concurrent outpatient counseling along with support group attendance.

Family members and close friends are also urged to attend support groups geared toward them such as Al-Anon or Codependents Anonymous. Family members can also benefit hugely from outpatient counseling, which can help them understand how better to help their chemically dependent loved one and themselves.

Summary

Recovering alcoholics/addicts must accept that they have a chronic (lifelong) disease that requires chronic (ongoing) maintenance and care. It might be unfair that it happened to them, but it's reality. It might not be their fault that they are alcoholics, but now that they know they are, it's their responsibility to get help and maintain sobriety.

If they want to stay healthy and happy, they must take steps to care for themselves. The diabetic must change her diet and possibly take medication for the rest of her life if she wants to prevent severe damage to her body. The alcoholic/addict must abstain from alcohol and drugs of abuse and keep his emotions, feelings, and resentments in check if he doesn't want to return to destructive behavior. Chronic disease requires the patient to change their lives in significant ways. But it can be done. And life can be better than it was.

The Support Group

*Bill Wilson cofounded Alcoholics Anonymous (AA) in 1935 and was the primary driver behind the development of its principles for successfully maintaining sobriety. Whatever your impressions of AA, Bill W. is responsible for popularizing a simple miracle that has benefitted humankind immensely. This miracle transcends religion, lack of religion, politics, social philosophy, medicine, and psychiatry. The miracle is not AA, per se, but the concept of **support groups**.*

*Bill did not invent the support group. What he did was piggyback on the success of others and incorporated the concept into his unique formula of alcoholics helping other alcoholics to stay sober. The primary principle underlying Bill's formula is the belief that the **recovering** alcoholic needs the shaky, fearful newcomer more than the other way around: Helping other drunks keeps drunks sober. And the primary vehicle for helping is the support group (in this case, AA).*

Since the overwhelming success of Alcoholics Anonymous was first publicized, even many of those who didn't like it saw the universality of its miracle. Too much religion in AA for you? Get together with like-minded individuals at SOS (Secular Organization for Sobriety). Alcohol is not your problem? Meet with fellow recovering heroin addicts, fellow gambling addicts, or fellow grieving parents instead. Don't like the 12 Steps? Develop your own formal or informal group with Six Steps — or Zero Steps.

*The common denominator of a support group, formalized or not, is the gathering of people with similar problematic experiences and solutions. The common **numerator** of a support group is that its members are there to help others — by listening and sharing what has worked for them. The miracle is that helping others strengthens you.*

PS: Bill Wilson would be extremely uncomfortable with the credit given him here. He generally spread the credit for his accomplishments around to others.

III) DUAL DIAGNOSIS: THE INTERACTION BETWEEN ADDICTION AND MENTAL ILLNESS

Experts estimate that a large percentage of alcoholics/addicts also have underlying mental disorders of varying degrees. Having a mental illness increases a person's chances of developing addiction. And addiction can trigger latent mental illness.

This begs the question, “Which comes first?” The answer is that each case is different. It’s important to note that there is no formula or pattern to these correlations. There are only statistics and anecdotal evidence.

This primer does not attempt to analyze or explain the complex interactions between brain chemistry, addiction, and mental illness. We do know that dysfunctional brain chemistry plays a major role in the genesis and progression of these two disorders, so it’s no surprise that addiction and mental illness may relate to and complicate each other in still unexplained ways.

The point here is that achieving sobriety is often only the beginning of a path to a healthy state of mind. Formal mental health treatment should always be considered as an adjunct to support groups, especially if a period of sobriety begins to allow other problems to surface. These two recovery components are not in competition with each other, but rather compliment each other. If any professional or layperson tells you that one precludes the other, find another professional or layperson.