FLORIDA BANKERS ASSOCIATION TALK

"IMPORTANT THINGS TO KNOW ABOUT ADDICTION"

Many individuals misinterpret addiction as a lack of willpower or moral principles to end drug use by choice. In reality, however, addiction is a complex, psychological phenomenon heavily studied by the scientific community. The topic of addiction is not only misunderstood by the general public, but often by the addicted person, family members, advisors, and even medical and psychological professionals.

However, there are addiction professionals whose expertise help both families and addicts navigate the complexity that is addiction. One such professional is Robin Piper, the Executive Director of Turning Point of Tampa, which is a very well respected and established institution in Tampa that treats addiction. Ms. Piper has been working the field of behavioral health since 1987, 31 years. She is a licensed mental health counselor, a certified addiction professional, a certified trauma specialist, and the Executive Director and Clinical Director at Turning Point of Tampa Bay. Ms. Piper's experience and expertise allow her to be an unparalleled resource in the world of addiction treatment.

The topic of addiction is so misunderstood that popular terms, such as "addiction," "alcoholism," and "drug addict" can take on many different meanings depending on the user. To clarify, the American Society of Addiction Medicine (ASAM) developed the following definition for addiction in 2007, which appears to be well accepted:

> "Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death."

Despite the definition above, the word "addiction" is often used to describe the situation where a particular substance or behavior continues to occur beyond the point of normal use.

In the instance that a person chooses to simply use a medication to fulfill a particular purpose, this would not be considered an "addiction" in a scientific manner. For instance, individuals may use a form of caffeine or stimulant feel energized in the morning, but may not be physically addicted to the coffee or caffeine itself.

There are very few truly "addictive" over-the-counter medications; however, individuals may use these medications well beyond the intended scope to limit the effect of their specific symptoms or other health problems.

By the same token, antidepressant and sleeping medications often have addictive qualities, but this is only because failure to continue to use them causes symptoms to reoccur, as opposed to the substance itself being classified as "addictive."

A second group of misconceptions arises where individuals believe that an "alcoholic" or "drug addict" is simply weaker or inferior in psychological makeup, without recognizing the presence of apparent medical conditions in parts of our population. Certain individuals have genetic propensities preventing them from reasonably controlling their use of certain substances. Oftentimes, family members and professional advisors will develop resentment or conclusions that the person in question is simply undesirable and intentionally irresponsible. Normally, this is not the case.

> "I think it's really important to understand that addiction is a disease. It is not a moral issue, it is not a choice that people make. Addiction cuts across all races, all social economic classes, and all religions. It is non-discriminatory. And people in your lives that you would never believe are addicted, are. You just don't see those signs and symptoms." – *Robin Piper, Executive Director and Clinical Director of Turning Point*

Due to this surrounding stigma, addicts themselves will sometimes accept this as their mental model; however, they will have a better chance of recovery when they recognize that addiction is often linked to a specific brain disease commonly found in a fraction of the population. The U.S. Supreme Court classified addiction as a disease in 1962, and the American Psychiatric Association listed alcoholism as a disease in 1965.

A 2000 study compared alcoholism to type 2 diabetes, mellitus, hypertension and asthma and found that each of these conditions is impacted by the following factors:

1. Genetic heritability,
2. Personal choice, and
3. Environmental factors.

The study found that each category of disease was linked in great part to the factors above, and that relapse percentages were comparable.

There is a common sentiment expressed by those who have been negatively affected by other people's drinking or drugging: if the addicted person "hadn't taken the first drink or continued to use drugs, they wouldn't be in this position." Unfortunately, "this claim ignores the fact that not everyone who drinks or [does] drugs becomes an Addict, and that it takes professional training to determine whether someone is an 'Addict.' Does the person have anxiety over

social encounters or the intentional desire to reduce inhibitions, or is the person unable to stop drinking due to impulsivity, physical need, or otherwise?"

The Science of Addiction by Carlton K. Erickson (2007)

Several websites discuss the position that addiction is a physical disease, including the Hazelden Betty Ford Foundation, the American Society of Addiction Medicine, and the National Institute on Drug Abuse webpages. Psychological diagnosis by psychologists and psychiatrists will normally follow the standard set forth in the *DSM-V*, which is the most definitive resource for the diagnosis and classification of mental disorders. The *DSM-V* provides criteria for the following disorders: substance abuse disorder and drug dependence.

Table 3.1
Criteria for Drug Abuse and Dependence (*DSM-IV*)

Drug (Chemical, Substance) Abuse

I. A maladaptive pattern of drug use leading to impairment or distress, presenting as one or more of the following in a 12-month period:
    1. Recurrent use leading to failure to fulfill major obligations
    2. Recurrent use which is physically hazardous
    3. Recurrent drug-related legal problems
    4. Continued use despite social or interpersonal problems

II. The symptoms have never met the criteria for chemical dependence.

Chemical (Drug, Substance) Dependence

I. A maladaptive pattern of drug use leading to impairment or distress, presenting as three or more of the following in a 12-month period:
    1. Tolerance to the drug's actions
    2. Withdrawal
    3. Drug is used more than intended
    4. Inability to control drug use
    5. Effort is expended to obtain the drug
    6. Important activities are replaced by drug use
    7. Drug use continues despite knowledge of a persistent physical or psychological problem

II. Two types of substance dependence can occur:
    1. With physiological dependence (including either items 1 or 2 above)
    2. Without physiological dependence (including neither items 1 nor 2)

Adapted from information in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.) (American Psychiatric Association, 2000).

Table 3.2
Criteria for Substance Use Disorder (*DSM-5*)

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by two (or more) of the following, occurring within a 12-month period:

1. Recurrent substance use resulting in a failure to the fulfill major role obligations at work, school, or home (e.q., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
2. Recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired buy substance use)
3. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.q., arguments with spouse about consequences of intoxication, physical fights)
4. Tolerance, as defined by either of the following:
    a) Amy for markedly increased amounts of the substance to achieve intoxication or desired effect
    b) Markedly diminished affect with continued use of the same amount of the substance

    (Note: tolerance is not counted for those taking medications under medical supervision such as analgesics, antidepressants, antianxiety medications or beta-blockers.)
5. Withdrawal, as manifested by either of the following:
    a) The characteristic withdrawal syndrome for the substance (referred to Criteria A and B of the criteria set for withdrawal from the specific substances)
    b) The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

    (Note: Withdrawal is not counted for those taking medications under medical supervision such as analgesics, antidepressants, antianxiety medications or beta-blockers.)
6. The substance is often taken in larger amounts or over a longer period than was intended
7. There is a persistent desire or unsuccessful efforts to cut down or control substance use
8. A great deal of time is spent in activities necessary to obtain the substance, use substance, or recover from its effects
9. Important social, occupational, or recreational activities are given up or reduced because of substance use

10. 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.
11. Craving or a strong desire or urge to use a specific substance

Severity specifiers:

- **Mild:** 2-3 criteria are positive
- **Moderate:** 4-5 criteria are positive
- **Severe:** 6 or more criteria are positive

Adapted from information in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.) (American Psychiatric Association, 2013).

The Turning Point of Tampa, a drug disorder treatment center, provides additional guidelines for drug addiction diagnosis as seen below.

Diagnostic Criteria for Drug-Addiction:

- Drugs are often taken in larger amounts or over a longer period than was intended
- Persistent desire or unsuccessful efforts to cut down or control drug use
- A great deal of time is spent in activities necessary to obtain drugs, use drugs and recover from drug use and its effects
- Craving, or a strong desire or urge to use drugs, in any form
- Failure to fulfill life obligations (i.e. work, school and family responsibilities)
- Loss of motivation and/or decrease in desire to obtain life goals
- Increased tolerance to drugs, combined with increased usage to feel the initial “high” once felt
- Using drugs despite Medical advice that it may be detrimental to physical health and/or exacerbate already existing conditions
- Continual usage even after multiple legal issues as a result of drug use"

Data drawn from https://www.tpoftampa.com/.

Further information on dependence can be derived from the following table, which estimates the percentage of users of a particular drug:

Table 3.3
Estimated Prevalence of Dependence
Among 15- to 54-Year-Old Users (1990-1992)

Drug	**Percentage of Users Who Become Dependent**
Nicotine	32%
Heroin	23%
Cocaine	17-18%
Alcohol	15%
"Stimulants" (mainly amphetamines)	11%
Cannabis	9%
Sedatives	9%
Psychedelics (including LSD)	5%
Inhalants	4%

Codeine, PCP, ketamine and inhalants have all been found to be in the lower percentages of being subject to "chemical dependence."

Data drawn from national surveys described by Anthony et al. (1994); Wagner &

Anthony (2002); O'Brien & Anthony (2005); and Hughes, Helzer, & Lindberg (2006).

> It is a long lasting condition, it doesn't go away. You can be in recovery, you can be drug or alcohol free, but it's a chronic use disorder that's going to be with you for a lifetime." – *Robin Piper, Executive Director and Clinical Director of Turning Point*

Chronic diseases, such as Diabetes and Parkinson's Disease, are long-lasting conditions that can be controlled but not cured. In the same way, about 25-50% of people with a substance use problem have disorders classified as chronic, which is referred to as 'drug addiction' as seen in Table 2.1 and 2.2 below (Center on Addiction, 2017).

Table 2.1
A Comparison of Several Diseases and Drug Addiction

Medical Characteristic	Type 1 Diabetes	Hyper-tension	Parkinson's Disease	AIDS	Drug Addiction
Signs/symptoms	Y	Y	Y	Y	Y
Diagnostic tests available	Y	Y	Y	Y	Y
Severity progression	Some	Y	Y	Y	Y
Treatable	Y	Y	Y	Y	Y
Environmental component	?	Y	Y	Y	Y
Pathophysiology	Y	Y	Y	Y	Y
Precursor condition	?	Y	Y	Y	Y
Pain or suffering	Some	Minor	Y	Y	Y
Life-threatening	Y	Y	Y	Y	Y
Medications for treatment	Y	Y	Y	Y	Y
Genetic vulnerability	Y	Y	Y	Y	Y
Impact on family	Y	Y	Y	Y	Y
Chronic nature	Y				
Curable over lifetime	N	Not often	N	N	N

Table 2.2
Causes of Disorder Types

Medical Disorder	**(Disease Type), Pathology**	**(Condition), Contributors**
Heart disease	(Heart attack) Genetics Birth defects Stress	(Atherosclerosis) Diet Lack of exercise
Diabetes	(Type 1) Genetics Unknown factors; virus? Autoimmune response?	(Types 2, 3) Diet Lack of exercise Pregnancy
Overeating	(Morbid obesity) Metabolism (thyriod) Brain chemistry (hypothalamic appetite centers)	(Overweight) Diet Lack of exercise
Chemical Use	(Drug Addiction) Genetics Brain chemistry (MDS)	(Drug overuse) Drug use Social settings

> "Some people are more able to deal with stress, more able to deal with life without looking for some kind of escape. They are less likely to get addicted than the person who needs more support, has a tougher time dealing with situations, just has that kind of personality makeup that makes them more susceptible to addiction." – *Robin Piper, Executive Director and Clinical Director of Turning Point*

Substances commonly used by individuals with a psychological need to "escape their situation" are most often used as the result of psychological addiction, rather than physical addiction. Physical addition may only apply after long-term use. Thus, evolves the difference between "dependence" versus "reliance." The book, *The Science of*

Addiction by Carlton K. Erickson, published in 2007, examines this comparison in detail as discussed below:

Dependence Versus Reliance

"Some people fervently (but erroneously) believe that any drug that produces withdrawal symptoms is Addicting. For example, we often hear that depressed patients are addicted to antidepressants because withdrawal signs are seen upon cessation of therapy, and that some people need to stay on antidepressants for the rest of their lives. However, antidepressants (as well as neuroleptics, anticonvulsants, antimania drugs, and mood stabilizers) have several characteristics that prevent them from producing dependence (or substance use disorder) as defined by *DSM* criteria:

- They have a long onset of action, so people are less likely to seek them out for any type of mood alteration.
- They anecdotally provide A quote noisy, blunted, unpleasant "State, including drowsiness and other side effects, that reduces their use or misuse.
- Patients often forget to take antidepressant medication, while dependence–producing drugs are rarely forgotten.
- Many depressed patients do not want to depend on pills to feel better and want to know when they can be taken off the medication, while SUD patients continue to seek dependence–producing drugs.
- Most importantly, these drugs have never been shown to have a selective effect on the MDS, the dependence area of the brain.

Many drugs are overused or misused. But in the context of Addiction there are now strict criteria related to the disease. Thus, when drugs are prescribed for medical purposes and are used as directed, they are not considered to be misused. Certainly, prescription medications (particularly those used to treat pain, narcolepsy, ADHD, depressions, and anxiety) can be misused, evidence to indicate that larger numbers of users become dependent than when drugs are used recreationally. In fact, there is evidence that therapeutic use of prescription medications is associated with the lower risk of dependence (authors' terminology) of the same drugs (Biederman, Wilens, Mick, Spencer, & Faraone, 1999; Robbins, 2002).

When people use properly prescribed medications for long periods of time or for a lifetime, it maybe best to state that such people are "reliant" on medications to reduce the symptoms of their disease (J. O'Neill, personal communication). Thus, diabetic patients are reliant on insulin; hypertensive patients are reliant on antihypertensive medication; hypothyroid patients are reliant on prescribed thyroid medication; depressed patients are reliant on antidepressants; ADHD patients are reliant on amphetamines—all for the purpose of living longer, more comfortably, and having improved functioning. Other some of these patients also meet *DSM-V* SUD criteria with such medications will never be known in such cases, as there is often no need to remove them from medications that are required

for medical purposes. If they do decide to stop using the medications and core symptoms do not return, they can live very comfortably without the medications. In other words, medically reliant patients do not have the disease of chemical dependence as it manifests in those who cannot stop using drugs that are producing harm.

The Special Case of Gambling Addiction

Chemical dependence disease shares some of the same characteristics as impulse–control and obsessive–compulsive disorders. With respect to nonchemical problems, clinicians and the public are eager to label the behavior as an addiction —to gambling, sex, food, exercise, and so on. None of these is considered a pathology in the *DSM* except gambling. Compulsive gambling or gambling problems were formally labeled "pathological gambling (PG)" in the *DSM-IV* (found under Impulse-Control Disorders Not Otherwise Specified, along with kleptomania, pyromania, and pathological skin picking, among others). PG is rather uncommon, estimated to affect 1-2% of the population, or 4-6% of gamblers, with young gamblers being at higher risk for the disease. A few studies have suggested that the causes of PG are involved with overactivity (Hollander, Pallanti, Allen, Sood, & Rossi, 2005) or underactivity (Reuter et al., 2005) brain areas, including the mesolimbic reward system.

Some community-based longitudinal studies have pointed out the transitory nature of gambling-related problems, however, and one study indicates that (*DSM-IV*-assessed) people with PG do not always follow a chronic and persisting course (Slutske, 2006). Slutske pointed out that more than a third of pathological gamblers do not experience any gambling-related problems in a follow-up year, and that they "recover," most without formal treatment. Although Gamblers Anonymous groups generally promote gambling abstinence, it may be that even the most seriously affected gamblers can regain control of their gambling over time. For those with persistent symptoms, medications are available. Naltrexone, augmentation of naltrexone with an antidepressant, and lithium (for gamblers with bipolar disorder) has been reported to be helpful (Grant & Kim, 2002). In the past, low-dose nalmefene (in clinical studies in the U.S.) has been shown to be effective while causing less liver toxicity than naltrexone in high doses (Grant et al., 2006). It is interesting that pharmacotherapies used to treat other Chemical dependencies and psychiatric disorders are useful in treating PG. This suggests that there are CMS neurochemical dysregulations that may be common to all of these brain disorders (Papgeorgiou, Rabavilas, Liappas, & Stefanis, 2003; Tamminga & Nestler, 2006), lending some credibility to the idea that PG and addicting drugs may involve similar brain reward systems. However, this remains controversial.

In *DSM-5*, gambling disorder (GD, changed from the *DSM-IV* terminology of PG) has been placed in a new category called Substance-Related and Addictive Disorders. According to *DSM-IV* criteria, PG is characterized by persistent and recurrent maladaptive patterns of gambling behavior and is associated with

impaired functioning, reduced quality of life, and high rates of bankruptcy, divorce, and incarceration. However, the *DSM-5* GD diagnosis may be more sensitive in identifying "a broader set of individuals with clinically significant gambling related problems" (Rennert et al., 2014). Finally, an SUD and PG are often co-occurring disorders.

Somewhat related to PG are the studies on Internet Gaming Disorder (IGD). These studies indicate neural mechanisms similar to those seen with drug addiction. Unfortunately, such studies have not yet reached [the critical mass consensus_needed] for IDG to be placed in the *DSM–5* as a separate diagnostic category, or even in the same category as GD. We await more research on IGD."

Erickson's book, *The Science of Addiction*, also provides the following genetic principals with respect to drug addiction, also known as the ten "Take-Home Talk Tips."

Genetic Principles in Drug Addiction: Take-Home Tips

1. Most of the early genetics research on drugs was in the area of alcohol dependence.
2. The quality of genetic research on alcohol dependence is on a par with the highest-quality science in any biological area.
3. Individuals with severe SUD (drug addiction) in first-degree relatives (parents, siblings, etc.) are at greater risk for developing the disease themselves.
4. All causes of Addiction involve a combination of genetic vulnerability and environment.
5. We are now in the era of genomics (study of genomes) and proteomics (study of proteins) in drug Addiction.
6. Epigenetics (things that affect gene expression) is becoming more important in the study of the causes of drug addiction.
7. Animal and human studies on the causes of drug Addiction are using the above principles.
8. Have the genes for Addiction is not destiny—that is, it takes more than just genes develop the disease (determined by epigenetic factors). A person who has some genes from a family history of drinking or drugging simply has a greater risk for developing the disease.
9. We may someday have medication that better target particular patients that have the appropriate genetic characteristics.
10. Finding the genes for Addiction requires highly advanced technical knowledge and methods.

On page 10 of *The Science of Addiction*, the author predicts that brain scans and other future diagnosis tools will be able to detect physical addiction. In the not so distant future, medical treatment will likely be used to clear the applicable drugs from patients' bodies. Under the medical supervision of trained personnel, who can administer

medications to reduce the pain and psychological trauma that might otherwise be endured to reach sobriety, a "sober" baseline will be established before entering into treatment. This method will be extremely beneficial for patients. It will be a necessity for those who refuse to abstain from a particular substance in the instance that it proves difficult to go "cold turkey".

The following song was written by ex-Beatle John Lennon with respect to withdrawal from heroine in 1969 and reached number 30 on the *Billboard* 100 Chart on January 17th, 1970.

Temperature's rising
Fever is high
Can't see no future
Can't see no sky
My feet are so heavy
So is my head
I wish I was a baby
I wish I was dead

Cold turkey has got me on the run

My body is aching
Goose-pimple bone
Can't see no body
Leave me alone
My eyes are wide open
Can't get to sleep
One thing I'm sure of
I'm in at the deep freeze

Cold turkey has got me on the run

Thirty-six hours
Rolling in pain
Praying to someone
Free me again
Oh I'll be a good boy
Please make me well
I promise you anything
Get me out of this hell

Cold turkey has got me on the run

Almost 20.5 million Americans suffer from addiction, but only 1 in 10 of these individuals will receive treatment of any kind. (*The Science of Addiction*, pg. 186). For

those who do receive proper treatment, most scientists agree that medications, psychotherapy, and counseling will often be the best solutions. Treatment of any kind can be advantageous—for the placebo effect, if nothing else. Thirty percent of individuals who are given a "sugar pill" for a problem, like anxiety, pain, or depression, will have a reduction in the applicable symptom or symptoms. Thus, this placebo-related treatment, among many others, is likely to show positive results.

Advisors should recognize that detoxification, another established medical treatment, can assist addicted individuals in clearing the applicable drugs and establish a sober baseline to allow for further improvements. According to the Turning Point of Tampa drug treatment center website, the physical detoxification process "needs to be followed by a comprehensive treatment program to deal with the psychological and mental health issues associated with addiction." Like the Turning Point of Tampa, most reputable addiction treatment centers will not accept a client who is "on drugs," and will only agree to treat a client once he or she has been detoxified. Therefore, this method can be extremely beneficial to the addicted person.

> "Detox isn't treatment, it is simply withdrawing the body from the alcohol or the drugs. So, after the detox they need support systems to stay in recovery, they need to see a counselor, they need to be in therapy, they need to start going to AA meetings. They need to start looking at those underlying issues that drive their drinking or drug use." – *Robin Piper, Executive Director and Clinical Director of Turning Point*

Individuals addicted to pain medication due to chronic pain conditions must seek out new methods of handling pain though. To help alleviate withdrawal, individuals can undergo acupuncture, yoga, meditation, diet changes, herbal medicines, exercise, and nutrients to help cope with their condition. People with personality disorders who engage in impulsive, illegal or inappropriate behaviors will typically need closer supervision during withdrawal, as well as receive long-term medical attention.

A widely used strategy has developed to aid people with AUD and SUD: *The 12-Step recovery program*. Professionals at the Turning Point of Tampa and other drug disorder treatment facilities believe that "the daily application of a 12-Step Program is the answer for alcoholics [and] addicts" (Turning Point of Tampa, 2018). By following these 12 Steps diligently, years of scientific have confirmed the 12-Step Programs' effectiveness in prompting individuals to begin recovery.

> "There is a sense of accountability in the rooms of AA. There is a sense of community, so people going to meetings don't feel like they're alone. There are people there who understand the way

> they think, they way the feel, and it can help them through the process." – *Robin Piper, Executive Director and Clinical Director of Turning Point*

A variety of 12-Step programs such as A.A. have given individuals the assistance they need in gaining sobriety through weekly meetings that take place across the globe. Although nonprofessionals hold these meetings, the most effective official treatment centers often introduce these 12-Step programs to their patients.

> "AA provides a very safe social outlet. One of the things we tell people when they come into treatment is, they've got to change people, places, and things. You can't hang out with your old friends, and go to the same places you went to when you were in your addiction. AA gives them a new social circle to really get that support, and people to participate in sober, fun, activities with. " – *Robin Piper, Executive Director and Clinical Director of Turning Point*

Almost 10% of alcoholics nationwide—which includes anyone with an AUG—attend these voluntary meetings. With half of the attendees reporting sobriety at the end of 3 years, these 12-Step program meetings have acquired an overall "4-5% effectiveness rate" (*The Science of Addiction*, pg. 199). If the public were better educated on the benefits of the program, A.A. participation would likely experience a dramatic increase.

An individual wishing to treat their anxiety disorder will find solace in the fact that a multitude of different medications for this condition exist, and the same is true for those with SUDs. Just like an array of treatments for anxiety proves beneficial to the patient, the wide variety of options to treat SUDs (therapies, medications, psychotherapy, etc.) imply an increased likelihood of positive outcome.

This array of available treatments includes therapies, counseling, 12-Step programs and *contingency management.* Experts disagree as to the effectiveness of incentive programs, also known as contingency management. Contingency management treatments provide coupons worth money to patients for every week they remain drug free. According to several studies, these coupons can effectively motivate patients to maintain abstinence. However, when compared to its use in controlled experimental studies, contingency management's success has been less evident in real treatment centers.

Table 11.1
Medications to Treat Alcohol Dependence

Generic Name	Trade Name	Neurotransmitter Affected
Naltrexone	ReVia, Depade	Endorphins (antagonist)
Naltrexone SR	Vivitrol	Endorphins (antagonist)
Acamprosate	Campral	Glutamate (antagonist)
Topiramate*	Topamax	Glatamate/GABA
Ondansetron	Zofran	Serotonin

*in clinical studies only, not yet approved by the U.S. FDA
Chart from *The Science of Addiction*.

In the instance of heroin dependence, the effected individual often turns to "methadone maintenance." This form of aid takes place at a methadone clinic, where a person addicted to heroin can receive medication-based therapy. Despite its controversial standing, a blind study suggests that this treatment directly reduces cravings for illegal heroin through methadone supplements. However, many reputable treatment centers do not approve of methadone maintenance because although it reduces cravings for heroin, the user will still be addicted, they still need to get the methadone, they will still experience physical withdrawal if they don't get it, as such, methadone still has the potential to cause problems in the user's life.

> "It doesn't solve the problem, it doesn't help the person work through their issues." – *Robin Piper, Executive Director and Clinical Director of Turning Point*

There is good news. Regardless of the substance, drug dependence and addiction are preventable. Becoming well informed on the topics of addiction and related disorders will prove beneficial to trustees, lawyers, and others who wish to help individuals and their families through challenging situations relating to drug use.