

A Family's Experience and Treatment with Addiction

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Abstract

100 million people are affected by someone's substance use; however, only 2.5 million people received substance abuse treatment last year (Horvath, et. al 2016; NIDA, 2014; Orford et al., 2009). This paper will objectively analyze a family's experience when a member of the family unit suffers from a substance use disorder. The concept of a family disease will be looked at as well as the definition of addiction, the prevalence of addiction, and the differing models of addiction. Lastly, the Family Reconnection Model will be introduced and a collective look will be taken at this model's strengths, limitations and necessity

Keywords: addiction, family, substance abuse treatment, family treatment programs

Dedication

To my father, for his unwavering patience, support, and love.

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CHAPTER I. INTRODUCTION

Annually, 23 million people in the United States suffer from a substance use disorder that requires treatment attention (Horvath, Misra, Epner, & Cooper, 2016; NIDA, 2014;). It is estimated 19 million children are exposed to alcohol abuse or alcoholism at home (Ronel & Haimoff-Ayali, 2009). 100 million people, not including children, worldwide have been both affected and concerned about another's excessive substance use (Orford et al., 2009). This means, approximately four times as many people are affected by a loved one's addiction than those which possess a substance use disorder. Looking solely at this statistic, it is no wonder addiction is considered a family disease. Furthermore, the prevalence of this disorder, the genetic predisposition, and the ecological viewpoint on substance abuse, which views individual's as nested in various systems such as families also lead to addiction being deemed a family disease. However, the typical protocol in addiction treatment is to primarily treat the individual, leaving the family in the peripheral of this family disease.

Rationale for the Study

Of the 23 million Americans in need of treatment last year only 2.5 million people, about 10% of those in need, received treatment services (Abuse, N.I., n.d.). Nationally, there are approximately 11,000 specialized substance use treatment facilities. These facilities provide rehabilitation, counseling, behavioral therapy, medication, and case management. Of the 11,000 treatment centers, only approximately 27% offer some form of couples-based counseling program, largely ignoring the family disease model and understanding the American society has come to accept (Copello & Orford, 2002). More importantly leaving 100 million individuals with limited knowledge, resources, and help. Further exemplifying the family's recovery and needs

are often viewed as adjunct while the individual with the addiction is considered the central concern.

Families that are impaired, physically and mentally, by substance abuse also strain the agencies that support physical and mental health. Annually, it is estimated the United States' cost of substance abuse exceeds \$740 billion. This includes, approximately, \$193 billion for illicit drugs, \$300 billion for tobacco, \$249 billion for alcohol, and \$78.5 billion for prescription opioids (National Institute on Drug Abuse, 2017). Addiction contributes to raised healthcare costs, housing instability, homelessness, criminality, higher incarceration rates, high-risk sexual behaviors, premature fatalities, destruction of property, unemployment and the dependence on welfare, and lost productivity amongst other losses. Agencies such as healthcare systems, social services, criminal justice, and child protective services are commonly connected to families with substance abuse challenges. This, in turn, creates an economic burden to fund treatment for substance use, medical, and psychiatric disorders, assistances associated with welfare dependence, joblessness, as well as criminal justice and social services involvement (Horvath et al., 2016).

Shifting the view of treatment from an individual lens to a collectivistic modality has many benefits. For example, lower substance-related family violence, less ill-health both physically and psychologically, more family stability which may result in lower divorce rates, less children being removed from the home which results in a reduction of costs associated with resource use through additional health and welfare service demands (US Department of Health and Human Services, 2013).

Evidence that supports the belief that families and peer networks can be influential in an individual's successful treatment is growing rapidly (Copello & Orford, 2002). Family focused

interventions have been proven to reduce drug use, prevent children from starting to use drugs, high rates of substance abuse treatment completion, improve parenting skills, reduce relapse rates and parole violations, and enhance social functioning (U.S. Department of Health and Human Services, 2013). Simply put, incorporating family into the treatment of an individual with a substance use disorder decreases the strain on community services and increases the likelihood treatment will be successful.

Purpose of the Study

The purpose of this study is to develop a treatment model for individual with an addiction's family. At this stage in the research, addiction will be provisionally defined in alignment with the DSM 5 criteria of a substance use disorder (DSM 5, 2013; Rossman & Rallis, 2017).

Research Questions

1. What is addiction?
2. What is a family?
3. What is the family's experience with addiction?
4. What treatment modalities are utilized to treat addiction?
5. What programs are available for individuals and their families that are experiencing addictions?

Significance of the Study

The results of this study have the potential to peel back overlooked key aspects of addiction and addiction treatment services. Shifting the view of treatment from an individual lens to a collectivistic modality has many benefits. For example, lower substance-related family

violence, less ill-health both physically and psychologically, more family stability which may result in lower divorce rates, less children being removed from the home which results in a reduction of costs associated with resource use through additional health and welfare service demands (US Department of Health and Human Services, 2013).

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Chapter II. REVIEW OF THE LITERATURE

From a societal view to a family systems standpoint, research establishes the need for family involvement in the treatment of substance use disorders; so why don't more treatment centers and services incorporate family services into their programming? This paper will shed light on the family's experience of substance use disorders. The literature reviewed will highlight the interpersonal relationships between those with an addiction and their families, environmental factors, family perspectives of addiction, effects of addiction on the family and the individual, comorbidity, differing health models, and utilized treatment modalities for individuals and families suffering from addiction. Finally, an argument will be made for the need for family inclusion in the treatment of substance use disorders.

Defining Addiction

To fully encompass and understand the effects and extent of addiction in both the individual in the addictive state and their family, it is important to define and characterize what this addictive state is. This, however, is not as easy as it may seem. Diverse cultures, systems, agencies, and belief systems view addiction in different ways. For the most part, addiction has many meanings and definitions. Definitions typically include but is not limited to: the use of a substance, a pathway to substantial harm, repeated use despite substantial harm, and a continuation because use was once pleasurable or valuable (Horvath et al., 2016). For example, some simply view addiction as a disease with the mindset of 'you either have it or you do not.' Some view addiction as repeated involvement with a substance, despite causing significant harm, because pleasure and/or value were once found with substance use (Horvath et al., 2016).

The American Society of Addictions Medicine's (ASAM), which encompasses America's largest professional society of addiction physicians, definition of addiction states addiction is a chronic disease of the brain which can be genetically predisposed (American Society of Addiction Medicine, 2011). ASAM's full, intricate definition goes on to describe physical, behavioral, and emotional ramifications and expectations of an individual in an addictive state.

Others view addiction as an appetite for a substance or activity that becomes obsessive and excessive (Copello & Orford, 2002). As the desire for the substance or activity becomes stronger, the individual diverts their energy, resources, and attention towards the desire and away from other primary life commitments such as family, work, and education. The object of desire, whether a substance or activity, slowly replaces the individual's commitment which results in other domains of the individual's life, such as family, to be compromised (Copello & Orford, 2002). Similar conclusions are documented in the *Big Book of Alcoholics Anonymous* however, the Doctor's Opinion in the *Big Book of Alcoholics Anonymous* (2007) views addiction as an allergy of the body. Individuals find comfort in this definition as it helps them explain things they could previously not.

These viewpoints will be discussed further in the Models of Addiction section. However, it is important to note, for clarity, unity, and specificity purposes, this paper will focus solely on substance addictions, opposed to activity or process addictions (e.g. gambling, sex, internet, food, etc.), and will define addiction, in alignment with the healthcare systems operating in the United States, using the *Diagnostic and Statistical Manual of Mental Disorders: DSM-5* (APA, 2013).

The *Diagnostic and Statistical Manual of Mental Disorders: DSM-5* utilizes 11 criteria to identify the severity of an individual's substance use. Based on the number of criteria met, an individual will fall into one of three severities of a substance use disorder: mild, moderate, or severe. Furthermore, if an individual was diagnosed with a substance use disorder and has achieved sobriety for a period, the status of the disorder is classified as being in "early" or "sustained" remission. Early remission refers to the criteria being previously met; with none of the criteria met for at least 3 months but less than 12 months. Sustained remission refers to criteria being absent for 12 months or longer (APA, 2013).

The DSM-5 (APA, 2013), classifies substances into eight types of disorders. They are: alcohol; cannabis (e.g. marijuana); hallucinogens (e.g. LSD); inhalants (e.g. nitrous oxide); opioids (e.g. heroin); sedatives (e.g. Xanax), hypnotics (Ambien), or anxiolytics (e.g. valium); stimulants (cocaine); and tobacco. Caffeine is classified as an individual category; however, a substance use disorder does not apply to this classification (Horvath et al., 2016).

When defining any physical or mental health disorder, it is important to understand, despite a diagnosis, people are individuals with a condition, not just a condition. Language is important and a condition, or diagnosis, does not define somebody. The term 'addict' is damaging because it institutes a label in which the individual is lost. In fact, the DSM-5 (APA, 2013) does not employ the term addiction because the authors were afraid of the potentially negative connotation the term addiction holds; instead they chose substance use disorders (Horvath et al., 2016). The proper term is 'an individual with a substance use disorder.' This is like not referring to somebody as 'autistic' but as an individual with autism. If we change our language, we change our mindset.

Prevalence

Using the DSM-5 criteria, statistics on prevalence of substance use disorders as well as treatment needs are determined. Let us first look at the prevalence of substance use disorders in America. While 23 million individuals need treatment, 19 million children have been exposed to alcohol abuse or addiction in the home, and 100 million individuals are affected or concerned about someone's substance use, it is difficult to find accurate statistics that fully describe the scope of the disorder (Horvath et al., 2016; NIDA, 2014; Orford et al., 2009; Ronel & Haimoff-Ayali, 2009).

Per the Substance Abuse and Mental Health Services Administration (2011), approximately 51.8% of the United States population, aged 12 or older, are current drinkers of alcohol with 23.1% of them participating in binge drinking in the past 30 days. Binge drinking is defined as having five or more drinks at least one day in the 30 days prior to the survey (Horvath et al., 2016). Per the National Drug Threat Assessment (2011), approximately 8.7% of Americans, 12 years or older, are currently illicit drug users. This is a statistically significant increase from 8.0% in 2008 (National Drug Threat Assessment, 2011).

It is argued, from cited research, that approximately 30% of American adults have met the diagnostic criteria for a substance use disorder at some point in their lives (Heyman, 2010). However, examination of other research does not appear to support this general estimate. Hasin, Stinson, Ogburn and Grant (2007) separated those who met these criteria into two categories, abuse and dependence. They found that approximately 18% have a lifetime prevalence of abuse while 12% are found to have a lifetime prevalence of dependence. They warn that although the two categories are similar they should not be summed because they are, in fact, completely different (Hasin et al., 2007; Stinson et al., 2005).

Regardless of varying estimates, the absolute number of those who receive treatment is relatively small, approximately 10%, in comparison to those in need, as previously discussed (Abuse, n.d.). Of the 10% of individuals that receive treatment services, it is estimated even fewer family members seek help or obtain treatment for this family disease (Steinhausen, Jakobsen, & Munk-Jergensen, 2017). There are many speculations and reasons the treatment prevalence is so low however, funding appears to be the most common obstacle to obtain treatment services.

Since the 1970's the United States government has spent billions of dollars to research addiction and addiction treatment services (Horvath et al., 2016). In America, there are two primary ways to fund treatment for a substance use disorder: private health insurance, which is funded by an individual's employer and the public healthcare system, which is funded by the United States government (Horvath et al., 2016). It is not uncommon for individuals to shy away from using private insurance to fund addiction treatment services because it creates a lasting record of the addiction and services received.

In the past, governments tend to fund research, treatment, and other addiction services following national drug trends. Through the Substance Abuse and Mental Health Services Administration, we have begun to understand substance use trends and rates rise and fall every few decades. Substance use trends are also referred to as 'epidemics.' Per the Merriam-Webster dictionary (2012), the definition of an epidemic is "affecting or tending to affect a disproportionately large number of individuals within a population, community, or region at the same time" so it is fitting to call these national drug trends epidemics. Past epidemics have included: alcohol, opium, and more recently opiates.

Along with research and other community services, many of the approximately 11,000 specialized treatment facilities in the United States that provide rehabilitation, counseling, behavioral therapy, medication, and case management are funded by the local, State, and Federal governments due to drug use and addiction being deemed a public health problem (Principles of Drug Addiction Treatment: A Research Based Guide, 2012).

Due to the government's extensive financial investment on researching drug trends and use, it is likely drug trends and substance use prevalence are both factors in which the government considers when funding treatment programs. However, despite society and science viewing addiction as a family disease, treatment centers are not offering nor are they equipped with service providers to treat the family (Copello & Orford, 2002). It is likely funding for family treatment is vastly disproportionate to funding of individuals with substance use disorders treatment. This contributes to family members not receiving services to help treat, manage, understand, and ultimately stop these epidemics.

Family Disease

Now that we know and understand the definition and prevalence of addiction, let us look at the commonly utilized term: family disease. To understand the concept of addiction being considered a family disease, we must first look at the two words, family and disease, separately.

The meaning of 'family' changes drastically depending on a multitude of factors such as: religion, ethnicity, age, medical status, geographic region, sexual orientation, social status, citizenship status, and national origin. On top of those factors, family is an ever-changing and fluctuating term, differing throughout generations and decades mirroring social and economic circumstances as well as the cultural norms of the time (Erera, 2002). Due to these ever-changing contexts, there is no singularly accepted definition of what constitutes a family.

The US Department of Health and Human Services (2013), recognizes families in three distinctive categories: traditional, extended, and elected families. The category ‘traditional family’ includes heterosexual relationships with children, single parent homes, families including foster relationships, adoptive families, blood relatives, stepfamilies, and grandparents raising grandchildren. The term ‘extended family’ refers to aunts, uncles, cousins, grandparents, and other relatives. The last category, ‘elected family,’ is viewed by the US Department of Health and Human Services as self-identified and usually joined by choice. For example, a gang related individual that recognizes other members of their gang as family (US Department of Health and Human Services, 2013).

Families are not just a system in which an individual belongs. They are conceptual and moral constructs, rich with symbolism, and with a narration and government of its own. Presently, families are more socially created rather than biologically or genetically fixed. Our understanding of what constitutes a family is shaped by families around us as well as other societal and economic forces. For these reasons, this paper will refer to family as the addicted individual’s closest emotional connections. It should be noted, this may or may not include an individual’s biological relatives.

Due to the immense medical research, we will look at the term disease with a medical perspective. Per Stedman’s Medical Dictionary 28th Edition (2006), a disease has two definitions. The first states, “a disease is an illness, a sickness that causes an interruption, cessation, or disorder of bodily functions, systems, or organs.” The second states, “a disease is an entity characterized by at least two of the following criteria: a recognized etiologic agent (or agents); an identifiable group of signs and symptoms; or consistent anatomical alterations of known body symptoms” (Gorski, 2001; Stedman, 2006).

Let us look at the first definition more closely. Research shows, as an addiction advances bodily functions and systems are compromised and often changed or damaged (Pierre du Plessis, 2010). For instance, if an individual suffers from an addiction to alcohol, their liver may be impaired resulting in loss of function or even cirrhosis, a condition that causes the liver not to work correctly due to long-standing damage (The Effects of Alcohol Use, 2017).

Brain functioning may also be compromised as addiction affects the mesolimbic system (Pierre du Plessis, 2010). The mesolimbic system of an individual's brain is where instinctual drives, emotional ability, and the pleasure pathways reside (Pierre du Plessis, 2010). When an individual uses a substance the pleasure pathways are ignited which results in the pleasurable feeling most individuals get when they use substances. With chronic and long compulsive drug use, these pleasure pathways become 'hijacked' which creates neurochemical dysfunction. Over time, this makes the individual think the substance is a life-supporting requisite, like food or water (Pierre du Plessis, 2010). Due to this change, or hijacking of the brain, it is hard for individuals with addictions to simply stop using the substance.

If we examine the second definition Stedman's Medical Dictionary, 28th Edition (2006), described, we will see a combination of three components. The first Stedman's Medical Dictionary definition discussed the symptoms outlined previously in the DSM-5 and the recognition of an etiological agent. An etiological agent could refer to the substance when introduced, time and time again, into the body or the genetic component found in individuals with an addiction. Due to the unique nature of addiction, research shows, if an individual, without a genetic predisposition for addiction uses a substance enough, they will develop an addiction (Abuse, 2014). This is similar to individuals whom are not genetically predisposed to diabetes, maintain a poor diet and activity level, and develop diabetes. Although the presentation

of diseases may differ, the basis as defined above, is always the same. Which is why illnesses such as diabetes and cancer are often compared to addiction. Similarly, as these diseases can be genetically passed on, addiction can too (Kojic et al., 1977).

When comparing addiction to other diseases, such as diabetes and cancer, it is easy to see, from a biological standpoint, why the two words, separately and combined, are commonly associated with addiction. The family disease label has been supported by research that evidences a genetic vulnerability and predisposition in blood relatives as well as a commonality of symptoms displayed in both the individual with the addiction and their family.

The genetic vulnerability has become a widespread concept in American society. It is commonly known that immediate relatives of individuals who suffer from an addiction have elevated rates of alcohol abuse or dependence, and an increased risks of substance use disorders that range across a variety of various substances (Steinhausen, Jakobsen, & Munk-Jorgensen, 2017). More specifically, research suggests, individuals with an immediate genetically associated relative who suffers from addiction, are 50% more likely to develop an addiction of their own (American Society of Addiction Medicine, 2011; Wilcox, 2015).

However, genetics alone do not determine the likelihood of addiction; there are environmental factors that contribute to addiction. The environmental contribution to the disease may suggest that addiction is also a family disease. For example, socioeconomic status, early life physical victimization, and neighborhood deprivation have been identified as risk factors of the development of substance use disorders later in life (Macleod et al., 2012). Situations and factors, such as these, can create a cycle of substance use and, subsequently, addiction. As the child is affected by their family's substance use or economic factors, their family may be

eventually affected by their substance use and economic factors. This is a strong cycle, which is likely hard to break.

Research has also found, adolescence is a key period for the development of substance use disorders (Steinhausen et al., 2017). Adolescents do not usually have control over most environmental factors that may increase their risk for addiction (e.g. where they live, their socioeconomic status, and being the victim of physical abuse early in life) and the development of a substance use disorder. Their substance use affects the whole family.

Active Addiction

Now that we have looked at the definition of addiction, the prevalence of addiction, and why addiction is considered a family disease, let us look at how addiction represents itself in both the individual with the addiction and the family. As previously mentioned, there are many common and overlapping features in which addiction represents itself in an individual and in that individual's family. A substance use disorder will always begin with the use of a substance by an individual. Because of this, the symptoms of addiction, usually, present themselves in the individual with the addiction before being paralleled in the individual's family. So, let us begin to understand the behaviors associated with the emergence and progression of an addiction in an individual.

Individual.

Addiction does not discriminate whom it affects or how it affects an individual. Stigma has supported society's belief that individuals with an addiction are likely homeless people that live under a bridge, and that those who do not fall under this umbrella are few and far between. However, this assumption is highly misinformed and inaccurate. Addiction affects individuals who are of low socioeconomic status, high socioeconomic status, homeless, home owning,

employed, unemployed, male, female, single, married, heterosexual, homosexual, bisexual, transsexual, educated, uneducated, and everything in between, individuals from all races, cultures, and ethnic groups. Additionally, addiction affects all aspects of an individual's life because as the individual continues to use a substance, they replace their involvement in other more productive activities with behaviors associated with their drug use.

As individuals who use substances continue to replace non-using activities and obligations with using-related ones, they suffer well-documented repercussions. These repercussions are well known because of the prevalence of addiction and widespread exposure of these consequences in literature from government funded research and media focus through television shows such as *Intervention* on A&E. Research shows that repercussions of addiction fall in several categories such as: emotional, social, physical, intellectual, work and productivity, financial, legal, lost time, and personal integrity and purpose (Horvath et al., 2016).

Emotional repercussions of addiction are usually the most misunderstood repercussions because it is hard for individuals to understand why someone would continue to use a substance if they do not feel good about using it. Some of the emotional repercussions experienced by individuals with addiction include fear, shame, guilt, boredom, grandiosity, loneliness, anger, self-loathing, paranoia, and sadness. These feelings can ignite a desire to use a substance and can also occur after a substance has been used. The individual may use to escape unpleasant feelings, have some moments of reprieve, only to have the feelings return, often more powerful than before. This leads to a cycle of use as the individual attempts to escape unwanted and unpleasant emotions. As the cycle continues and grows, the regularity and degree of these undesirable feelings may contribute to the development or progression of additional mental health disorders

(Horvath et al., 2016). It is not uncommon for an individual to have a substance use disorder and another psychiatric concern (Comorbidity: Addiction and Other Mental Illnesses, 2010).

The social costs of an addiction occur when an individual with a substance use disorder damages or disrupts important relationships, decreases their efforts to maintain healthy relationships, and focuses their social sphere to other individuals who use substance(s). Oftentimes the disruption of healthy relationships involves pushing family and loved ones away. While there may be a multitude of reasons for this happening, the reasons differ between individuals. Social isolation is a typical characteristic of the progression of addiction and is also a common driving force for treatment and recovery (Horvath et al., 2016).

When an individual abuses a substance, they suffer physical repercussions to their health. As mentioned previously, individuals whom abuse alcohol can develop cirrhosis of the liver but there are many other health related costs to addiction. These include but are not limited to: heart and lung disease, cancer, changes in blood pressure, changes in appetite, gastrointestinal issues, respiratory issues, kidney damage, hormonal issues, stroke, heart attack, and even death (Abuse, 2012). The longer an addiction is present, the more likely it is an individual will develop a physical health condition.

Individuals with an addiction also suffer from intellectual costs such as a decreased ability to solve problems, memory problems, decision-making abilities, and poor impulse control (Abuse, 2012; Horvath et al., 2016). These intellectual repercussions are likely to reflect in an individual's work and productivity, which in turn creates additional problems in these areas. Missing important deadlines, failing to meet obligations, skipping work, impaired abilities to safely operate tools or equipment, including a car to get to work etc. (Horvath et al., 2016).

Enough problems in the work and productivity area of an individual's life can lead to demotions and job loss, often leading to financial burdens.

Financial burdens can present themselves in a variety of ways besides the loss of a job. Even if an individual with an addiction maintains employment, which is not uncommon, they may be financially burdened from spending money on using and obtaining the substance itself as well as dealing with the consequences of their addiction. These consequences can include legal costs, healthcare costs, and even treatment costs. Legal costs can also appear in a variety of ways in an individual suffering from addiction. The more obvious ways are due to the legal costs associated with illegal behavior (e.g. promotion of a dangerous drug or possession of a dangerous drug). Other unforeseen legal expenses can arise in the form of what an individual did while they were engaging in their addiction. Such as, bar fights, domestic violence, driving under the influence (DUI), or even divorce (Horvath et al., 2016).

As an addiction grows, the addictive behavior of the individual also grows more concerning. Addicted behavior is referred to as any behaviors directly related to an addiction (e.g. purchasing drugs, using substances) and includes behaviors that are indirectly related to an addiction. These behaviors include and are not limited to secrecy about use, dishonesty, manipulation, and fraudulence. As an addiction changes an individual's physical being, it also changes their emotional and interpersonal being. Individuals with addiction will oftentimes begin to diminish their personal integrity and go against their own personal morals and values. Their sense of what is right and wrong, how others should be treated, and their sense of responsibility to others and society will shift leading them to act and make decisions they would not have previously made. This diminished personal integrity can appear in a variety of ways including: stealing from loved ones, threatening people, deception and dishonesty, and making excuses

instead of offering a sincere apology. When individuals with an addiction go against previous morals they held, feelings of self-loathing and shame can appear which, in efforts to diminish these feelings, can lead to more substance use (Horvath et al., 2016).

As an individual's time spent obtaining, using, and recovering from a substance increases they sacrifice participating in important, enriching activities that make life meaningful. Living a life with meaning and purpose is a commonly desired trait; one that is exhibited throughout humanity (Frankl, 1946). Meaningful activities are separated into two categories: love and work. The love category involves time spent in relationships with others while work involves being productive, of service, and learning. When more time is spent in the addictive state less time is available to devote to these two basic human activities which results in an absence of meaning and purpose in life (Horvath et al., 2016). An individual with impaired self-control partakes in an overwhelming pursuit of momentary pleasures that eventually replace delayed gratifications to life satisfaction.

As previously stated, the DSM-5 (APA, 2013), outlines 11 criteria for a substance use disorder diagnosis. Table 1 identifies the eleven criteria identified in substance use disorders and examples of commonly exhibited behavior in individuals with an addiction.

DSM-5 CRITERIA	INDIVIDUAL'S BEHAVIORS
SUBSTANCE IS OFTEN TAKEN IN LARGER AMOUNTS OVER A LONGER PERIOD THAN WAS INTENDED.	<i>Going out for a drink with a friend turns into drinking all night long.</i>
THERE IS A PRESISTENT DESIRE OR UNSUCCESSFUL EFFORT TO CUT DOWN OR CONTROL USE.	<i>Drinking beer instead of liquor, periods of abstinence, only using on the weekends, etc.</i>

A GREAT DEAL OF TIME IS SPENT IN ACTIVITIES NECESSARY TO OBTAIN THE SUBSTANCE, USE THE SUBSTANCE, OR RECOVER FROM ITS EFFECTS.

Driving across town to get drugs, using all night and being hungover the whole next day.

CRAVING, OR A STRONG DESIRE OR URGE TO USE THE SUBSTANCE.

An obsessive desire to use a substance

RECURRENT SUBSTANCE USE RESULTING IN A FAILURE TO FULFILL MAJOR ROLE OBLIGATIONS AT WORK, SCHOOL, OR HOME.

Calling in sick to work because of a hangover, forgetting to pick up the kids from school, or passing off work on other employees because of substance use

CONTINUED SUBSTANCE USE DESPITE HAVING PERSISTENT OR RECURRENT SOCIAL OR INTERPERSONAL PROBLEMS CAUSED OR EXACERBATED BY THE EFFECTS OF THE SUBSTANCE.

Having marital issues caused or exacerbated by the substance use and continuing use despite these problems

IMPORTANT SOCIAL, OCCUPATIONAL, OR RECREATIONAL ACTIVITIES ARE GIVEN UP OR REDUCED BECAUSE OF SUBSTANCE USE.

Not going to a family birthday party because they will not let you drink there, missing your child's dance recital because you passed out after using.

RECURRENT SUBSTANCE USE IN SITUATIONS IN WHICH IT IS PHYSICALLY HAZARDOUS.

Recurrent drinking and driving, going to a 'rough' part of town to score dope

SUBSTANCE USE IS CONTINUED

Having depression and continuing to drink,

<p>DESPITE KNOWLEDGE OF HAVING A PERSISTENT OR RECURRENT PHYSICAL OR PSYCHOLOGICAL PROBLEM THAT IS LIKELY TO HAVE BEEN CAUSED OR EXACERBATED BY THE SUBSTANCE.</p>	<p><i>going to substance use treatment and continuing to use, being diagnosed with cirrhosis and continuing to drink.</i></p>
<p>TOLERANCE AS DEFINED BY EITHER OF THE FOLLOWING: (A) A NEED FOR MARKEDLY INCREASED AMOUNTS OF THE SUBSTANCE TO ACHIEVE INTOXICATION OR DESIRED EFFECT OR (B) A MARKEDLY DIMINISHED EFFECT WITH CONTINUED USE OF THE SAME AMOUNT OF THE SUBSTANCE.</p>	<p><i>Using more of the substance to get the desired effect.</i></p>
<p>WITHDRAWAL AS MANIFESTED BY EITHER OF THE FOLLOWING: (A) CHARACTERISTIC WITHDRAWAL SYNDROM FROM THE SUBSTANCE OR (B) THE SUBSTANCE, OR ONE CLOSELY RELATED, IS TAKEN TO RELIEVE OR AVOID WITHDRAWAL SYMPTOMS.</p>	<p><i>Experiencing a hangover after a night of drinking, sleeping for days after methamphetamine use.</i></p>

Table 1: Examples of DSM 5 Substance Use Disorder Criteria. Common examples of DSM 5 criteria for substance use disorders. (DSM-V criteria from: APA, 2013)

As the table shows, the criteria identified in the DSM-5 (APA, 2013), corresponds with the behaviors research has identified. Viewing addiction as a progressive state that worsens over time is a concept that has been referenced throughout this literature review and has grounding in research, particularly in a model called the ‘Jellinek Curve.’ The Jellinek Curve was developed in 1952 by E. Morton Jellinek (Hazelden Betty Ford Foundation, 2016) and is an infograph that displays the progression of addiction in stages.

As displayed in Figure 1, the graph started with the early occasional relief drinking phase, constant relief, physical deterioration, and eventually complete defeat. At the beginning, the individual found pleasure or at least value in their substance use. For example, someone suffering from social anxiety may have a drink while at a party to feel more comfortable. However, as the individual's addiction progresses, they are likely to feel powerless or out of control of their behavior. Their addiction may become unpleasant, unwanted, and redundant however, they continue to use because they must; not necessarily because they want to (Horvath et al., 2016).

“Bottom's” are commonly referred to as the lowest point in an individual with an addiction's life. It is believed once an individual reaches their “bottom” they will seek help and/or change their distressing behavior and substance use. “Bottoms” are believed to be a motivation for treatment and are also believed to be an integrated part of an individual's addiction (Chen, 2010). There is no evidence that once an individual hits a certain spot in the Jellinek Curve, or in their addiction, they will shift trajectory and work towards a different life. So, although all the scenarios on the left side of the Jellinek Curve are in a descending pattern, one does not have to reach the bottom to switch to the right side of the graph.

While Jellinek identified the stages of alcoholism, from early social drinking to the seemingly unending cycle of obsessive drinking of the Jellinek Curve, Max Glatt added the right side that represented the typical pattern of recovery (Hazelden Betty Ford Foundation, 2016). Glatt included physical changes, such as natural rest and sleep, physiological changes, such as the return of the individual's self-esteem, financial changes, such as steps towards emotional stability, and spiritual changes, such as enlightenment (Hazelden Betty Ford Foundation, 2016).

These vast arrays of changes are seen throughout the previously mentioned categories in which repercussions of addiction may be experienced.

The Jellinek Curve is currently utilized to help explain the typical progression of addiction to individuals with an addiction, family members of individuals with an addiction, and community members. It is a powerful tool used in treatment settings to help explain to individuals with addiction where they are within the progression of their addiction, what they are likely to lose next should they continue to use, and what they can expect to gain in a life of sobriety and recovery.

A common question when looking at the Jellinek Curve is: How do individual's crossover to the right side of the graph? Although this differs for every individual, Prochaska, DiClemente, and Norcross (1992) identified five *Stages of Change* that appear common in the change process. The five separate stages are: *pre-contemplation*, *contemplation*, *preparation*, *action*, and *maintenance*.

The *Pre-contemplation* stage is characterized by individuals who are not thinking about changing their behavior in the next six months. Individuals in the *Contemplation* stage begin to contemplate a change in their behavior. *Preparation* is classified as a stage when individuals are preparing or have recently tried to change their behavior. *Action* is the stage in which individuals have made actions to change their behavior. Lastly, the *Maintenance* stage is characterized by the six-month period after the action period during which time the change is being maintained and continues until the behavior is terminated as a problem (Prochaska et al., 1994). Clinicians utilize an array of interventions to help clients move through these stages.

Family.

The family disease concept led to decades of research on the effects of an individual's addiction on their family unit. Utilizing the disease model, which views addiction as chronic and progressive, we can further support the family disease concept. As an addiction grows in an individual, it also grows in the family. As the disease progresses it affects the life of the individual with addiction and the family of the individual with addiction in all facets: physical, social, professional, mental, emotional, and spiritual.

Family members utilize a variety of strategies to understand and respond to a loved one's addiction. 'Coping' refers to the way family members respond, react, and manage their own symptoms and the problematic behaviors of the loved one's addiction. From the chaos come stress, uncertainty, survival behaviors, unhealthy relationships, and blurred boundaries. These developments are often viewed as unhealthy coping mechanisms within codependent relationships.

Codependency is defined as a dysfunctional repetition of living and problem-solving which is developed by a set of rules within the family system (Gillette, n.d.). Common codependency characteristics include difficulty identifying and expressing feelings, rigid attitudes and behaviors, feeling overly responsible for the feelings and behaviors of others, perfectionism, difficulty making decisions, black and white thinking, constant need of approval from others, and difficulty adjusting to change (Gillette, n.d.). Codependency is often seen as a negative and inefficient relationship pattern that forms in family members of addicted individuals. Due to the family's coping style, symptoms, like those exhibited in their loved one, are also exhibited in the family.

To understand the parallel between an individual's addiction and a family's experience, the table below presents common symptoms an individual suffering from an addiction will have and how these symptoms are presented in the family (see Table 2). Earlier we utilized the Jellinek curve to understand the progression of the addiction and symptoms the individual suffering from the addiction can expect. Figure 4 identifies eight common symptoms in an addiction, which are identified on the Jellinek curve, and then applies the same progression of symptoms to the family of the addict, which helps illustrate the parallel process addicts and families go through as the disease progresses.

Table 1

<i>Symptoms an Individual with the Addiction will likely exhibit (Jellinek Curve)</i>	<i>Family Member of the Individual with the Addiction</i>
Increase in Tolerance	Puts up with behavior not previously tolerated
Feelings of Guilt	"I should have been a better parent/friend/spouse" etc.
Using Bolstered with Excuses	Making excuses for their use
Efforts to Control Fail	Hiding car keys, not leaving them alone
Family and Friends Avoided	Avoiding family and friends due to embarrassment, shame, etc.
Unreasonable Resentments	Why can't they just stop?
Physical Deterioration	Loss of sleep, headaches, etc.
Obsession	Obsessed with individual with the addiction

Table 1: Applying the Jellinek Curve to Affected Family Members. This table describes the typical phases of alcohol addiction and recovery for affected family members in relation to the Jellinek Curve, (© 2016, Hazelden Betty Ford Foundation, all rights reserved).

Table 1 outlines some common parallels between the individual with addiction and the family member of the individual with addiction. However, there are many more symptoms that could be added including: physical ill-health, relationship distress and dissatisfaction, economic burdens, emotional burdens, family instability, developmental repercussions in children (Daley, 2013). A loved one's addiction can affect a family member's physical health as they can develop stomach problems, headaches, irritable bowel syndrome, increased stress levels, etc. (Nowinski, 2011).

The emotional burdens the family may experience include anger, anxiety, isolation, frustration, depression, shame, and embarrassment. These burdens often lead to relationship dissatisfaction that results from heightened tension in the household, breakdown of communication, or a desire to distance themselves from others. Social relationships can become strained or stressed and the family may face marital separation or divorce, reduced or broken friendships, and eventually may experience social isolation. In addition, breakdown of communication and heightened tension in the household often leads to family instability which may present itself in the form of abuse or violence, separation, or divorce.

Family member's professional lives may suffer due to an inability to concentrate, focus, or even go to work or school, which can lead to economic burdens. Additionally, the family may be financially supporting their loved one, resulting in additional economic burden. The mental health of family members may also suffer as they develop depression, anxiety, anger, or fear. The spirituality of family members may suffer as they partake in or allow behaviors that go against their values, morals, or standards (Giermyski & Williams, 2012).

Developmental repercussions in children have been closely examined for several decades. Continuing research has moved Fetal Alcohol Syndrome to a spectrum disorder

renamed Fetal Alcohol Disorder Spectrum. The repercussions related to this disorder alone include: cognitive impairments, poor behavior and impulse control, conduct and oppositional defiant disorders, anxiety, depression, and poor emotional regulation (Williams et al., 2015).

Like the individual with the addiction, the effect of a substance use disorder on the family has many different factors. The severity of the addiction, the length of time the disorder has been present in both the individual and family, and the coping strategies utilized are some of the most predominate influences. However, other factors such as the presence of another psychiatric illness, available support for the family, and the behaviors exhibited by the family member with the substance use disorder are also decisive in the projection of the addiction and health of the family.

If we conceptualize the family's symptoms as we would for the client, the next logical step would be diagnosis. Looking at the 11 criteria outlined in the DSM 5 (2013), most of these symptoms and signs of distress can be recognized in the addict's closest relationships. Looking at the criteria individually and applying them to the individual with the addiction's close relationships allows for a more extensive and rich understanding of the intricate relationship between the individual with the addiction and their family as well as the concept of addiction being a family disease.

Table 2 includes the eleven DSM 5 criteria used to assess substance use disorders, and applies them to symptoms commonly displayed in the families. All eleven DSM 5 criteria have overlap and harmonies consistent of those experienced by family members of the addict. The table below illustrates how the eleven DSM 5 criteria could matriculate in the family unit.

Table 2

DSM 5 CRITERIA FOR SUBSTANCE USE DISORDER LIKELY FAMILY'S BEHAVIORS

<p>SUBSTANCE IS OFTEN TAKEN IN LARGER AMOUNTS OVER A LONGER PERIOD THAN WAS INTENDED.</p>	<p><i>The individual with the addiction is often endured in larger amounts over a longer period than was intended (i.e. failed boundaries, a dinner turns into a place to stay for the night).</i></p>
<p>THERE IS A PRESISTENT DESIRE OR UNSUCCESSFUL EFFORT TO CUT DOWN OR CONTROL USE.</p>	<p><i>Trying to control the individual with the addiction's behavior or substance use (i.e. taking away car keys, limiting funds, hiding corkscrews, imposing treatment etc.).</i></p>
<p>A GREAT DEAL OF TIME IS SPENT IN ACITIVITIES NECESSARY TO OBTAIN THE SUBSTANCE, USE THE SUBSTANCE, OR RECOVER FROM ITS EFFECTS.</p>	<p><i>A great deal of time is spent in activities involving the individual with the addiction or addiction itself (i.e. excessive worrying, checking, or obsession).</i></p>
<p>CRAVING, OR A STRONG DESIRE OR URGE TO USE THE SUBSTANCE.</p>	<p><i>A strong desire or urge to see or check on the individual with the addiction (i.e. phone calls, home visits, etc.)</i></p>
<p>RECCURENT SUBSTANCE USE RESULTING IN A FAILURE TO FULFILL MAJOR ROLE OBLIGATIONS AT WORK, SCHOOL, OR HOME.</p>	<p><i>Failure to fulfill major role obligations at work, school, or home due to preoccupation with the individual with the addiction (e.g. missing work because you were up all night worrying about your loved one).</i></p>
<p>CONTINUED SUBSTANCE USE DESPITE HAVING PERSISTENT OR RECURRENT SOCIAL OR INTERPERSONAL PROBLEMS CAUSED OR EXACERBATED BY THE EFFECTS OF THE SUBSTANCE.</p>	<p><i>Continued unhealthy relations with the individual with the addiction despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the individual with the addiction (i.e. having marital issues caused or exacerbated by the individual with the addiction yet continuing unhealthy relationships with the individual with the addiction despite these problems).</i></p>
<p>IMPORTANT SOCIAL, OCCUPATIONAL, OR RECREATIONAL ACTIVITIES ARE GIVEN UP OR REDUCED BECAUSE OF SUBSTANCE</p>	<p><i>Important social, occupational, or recreational activities are given up or reduced because of the individual with the addiction (i.e. not having company over because of the individual</i></p>

<p>USE.</p> <p>RECCURENT SUBSTANCE USE IN SITUATIONS IN WHICH IT IS PHYSICALLY HAZARDOUS.</p>	<p><i>with the addiction, not going away on vacation because of fear of leaving the individual with the addiction home alone etc.).</i></p> <p><i>Continued relations despite being put in physically dangerous or hazardous situations (i.e. the individual with the addiction is selling drugs out of the shared home).</i></p>
<p>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.</p>	<p><i>Continued inter-reliant behaviors despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the individual with the addiction (i.e. being depressed due to the situation or relationship with the individual with the addiction yet still engaged in an unhealthy relationship).</i></p>
<p>TOLERANCE AS DEFINED BY EITHER OF THE FOLLOWING: (A) A NEED FOR MARKEDLY INCREASED AMOUNTS OF THE SUBSTANCE TO ACHIEVE INTOXICATION OR DESIRED EFFECT OR (B) A MARKEDLY DIMINISHED EFFECT WITH CONTINUED USE OF THE SAME AMOUNT OF THE SUBSTANCE.</p>	<p><i>Endure behavior not previously tolerated (i.e. lying or stealing)</i></p>
<p>WITHDRAWAL AS MANIFESTED BY EITHER OF THE FOLLOWING: (A) CHARACTERISTIC WITHDRAWAL SYNDROM FROM THE SUBSTANCE OR (B) THE SUBSTANCE, OR ONE CLOSELY RELATED, IS TAKEN TO RELIEVE OR AVOID WITHDRAWAL SYMPTOMS.</p>	<p><i>A marked desire to check on, talk to, or see the individual with the addiction when communication has been scarce, brief, hurtful, or ceased all together.</i></p>

Table 2: Substance Use Disorder Criteria in the Affected Loved Ones. This table gives examples of common behavior found in family members of individuals with an addiction (APA, 2013).

As an individual's addiction symptoms progresses so does the family's. Table 2 represents the complicated relationships that exist when addiction exists in a codependent family

unit. Roles, relationships, and experiences all differ as with all addictions. However, the symptoms for addiction in an individual and family have a common etiology. As the addiction grows in the individual, it has the potential to grow in the family.

The DSM 5 classifies addictions on a spectrum of mild, moderate, and severe depending on how many of the eleven criteria are met. (2-3 mild, 4-5 moderate, 6+ severe). The same spectrum could be utilized for the family. As the addiction gains severity in the individual, the symptomology, repercussions, and individuals affected also has the potential to grow.

Models of Addiction

There are many models utilized to help understand addiction. Before these models are discussed, it is important to note why there are so many different models. Addiction is a highly researched and highly controversial marvel that is unlike many medical conditions. There is no one gene, defect, or experience that creates an addiction (Horvath et al., 2016). As previously mentioned, there are many factors that influence an individual's view on addiction. These different views have led to the development of different models of addiction. Each model is unique, focuses on different developmental factors, and helps shed light on distinctive aspects of a complicated concept. They are also all heavily critiqued and highly controversial due to differing research, societal, cultural, and generational views. Furthermore, both models contribute in their own way to the stigma, treatment logic, and prognosis of the addicted individual.

All current existing models of addictions seek to explain many previously unanswered questions. Two of the most asked questions these models attempt to answer are: who is responsible for creating the problem and who is responsible for solving it (Brickman et al., 1982). Per Brickman and colleagues (1982), there are four possible answers to these questions

that led them to develop their own umbrella of models. The four possible models that address these questions are: Moral, Medical, Enlightenment, and Compensatory. The primary difference between the four models is determined by the locus of control for the addiction.

Under these four separate, yet interrelated viewpoints, models defining and explaining different aspects of addiction have formed. The Moral model states that the individual is responsible for their addiction. The individual with the addiction created the problem; therefore, it is up to them to solve it. The Medical model is the exact opposite. It puts forth that the individual is not responsible for creating the problem nor are they responsible for solving it. For this model, treatment and the advice of experts are needed to solve the addiction. The Enlightenment model states that individuals are responsible for creating the problem however, they are not responsible for solving it. This model identifies the individuals as having a role in creating their addiction; however, they do not clearly understand the true nature of their problems and should therefore follow the guidance of a greater authority. The Compensatory model states that individuals are not responsible for creating the problem; however, they are responsible for solving it.

For most of the twentieth century, there were two models that dominated our understanding of addiction, the disease model and the moral model. The disease model of addiction viewed addiction as a disease caused by chronic substance use that led an individual to have no control over their substance use. The moral model viewed individuals with addictions as responsible for their addiction; and therefore, these individuals should be held accountable and judged fittingly (Horvath et al., 2016).

Since the twentieth century, new research and information have led to changes and adaptations of these two primary models; and many new models have come into existence. The

disease model of addiction has been utilized and scrutinized for decades. This model views addiction as a chronic and progressive disease of the brain and identifies the etiological agent as alcohol or another substance that interacts with the susceptible host, the individual. This is like the definition previously stated by Stedman's Medical Dictionary (1982). The individual has a genetic predisposition to initiate the disease process and expresses the disease as an obsession with acquisition of a substance (Horvath et al., 2016). Compulsion then appears after the substance is obtained (Miller & Giannini, 2012).

The disease model suggests an individual with an addiction loses control over their substance use due to an underlying disease. Like other diseases such as diabetes or cancer, proponents of the disease model of addiction believe this is a condition an individual either has or does not have and that there is a genetic predisposition for those with the disease. Research suggests that individuals with an immediate genetically associated relative who suffers from addiction are 50% more likely to develop an addiction of their own (American Society of Addiction Medicine, 2011; Wilcox, 2015). Once an individual has the disease of addiction, abstinence is the only way for the disease to go into remission; moderation is no longer an option once the disease has developed (Horvath et al., 2016).

The disease model is supported by research that suggests brain chemistry is changed once an addiction is formed. When an individual uses a substance, their brain releases chemicals that the individual finds desirable. The desire for more of the substance leads to repeated substance use and the individual becomes obsessed with the substance and the resulting brain state or experience. As the individual's obsession and use grows, their brain changes. Research has found that after chronic substance use, the brain changes in four fundamental ways: addiction instigates vicissitudes to the brain's homeostasis, addiction changes brain chemistry, addiction alters the

brain's communication patterns, and addiction produces modifications to brain structures and their functioning (Horvath et al., 2016). These changes in an individual's brain functioning account for many behaviors associated with addiction. Behaviors associated with addiction include: a powerful need to obtain the substance despite negative consequences to themselves or others, difficulty quitting or changing use, and an obsession with everything involving use of the substance (Horvath et al., 2016).

Proponents of the disease model believe this model benefits individuals with addiction by allowing them to see their addiction as something beyond their control which they believe, cuts down on stigma, blame, and shame and allows the individual focus on recovery. Critics of the disease model, contend identifying addiction as a disease gives the impression it is too difficult to quit, undercuts self-efficacy and disregards the role of social factors in the progression of an addiction and its treatment (Meurk et al., 2015). Additionally, a major critique of the disease model is that it is utilized solely for societal and medical benefits. Classifying it as a disease of the brain allows it to fall under the traditional medical model of disease, which only requires an abnormal condition to be present and cause discomfort, dysfunction, or distress to the afflicted individual. This classification allows for a more solidified treatment, insurance coverage, and billing benefits. Many critics of the disease model believe it is classified as a disease merely for these benefits and that the classification and paradigm takes away moral responsibility from the individual. Furthermore, it is believed the disease model provides a key part of the rationalization for extreme, unsuccessful drug control policies while supporting values that are revolting outside the drug field (Alexander, 1987; Volkow & Koob, 2015).

The adaptive model takes a broader approach by identifying addiction as the consequence of intrapersonal and interpersonal stresses: economic, familial, individual, and social (Wurmser,

1974). This perspective views addiction as an individual on a journey to achieve maturity in the form of self-reliance, economic independence, and responsibility toward others (Wurmser, 1974). If an individual views their journey as a failure, immaturity, self-hate, depression, and family breakdown are inevitable and substance use is a result of their failed maturity. The individual's struggle to achieve adult maturity may be exacerbated by environmental challenges, such as poverty (Miller & Giannini, 2012).

The developmental model of addiction is like the adaptive model in that it identifies immaturity or developmental arrests as the cause of addiction. Research shows, childhood and adolescence are critical periods in healthy development (Meurk et al., 2015). When a developmental arrest occurs at either of these times, it limits the individual's ability to make wise decisions, delay immediate selfish desires, and understand how their decisions affect their relationships and society (Horvath et al., 2016). These developmental arrests allow for repeated substance use, which may result in addiction.

The evolutionary model of addiction puts forth that individuals are compelled to repeat pleasurable experiences because, at one point, it ensured our survival. For example, eating and sexual reproduction are both pleasurable acts individuals have participated in to ensure survival throughout time (Saah, 2005). Normal yet compelling desires cause individuals to repeat pleasurable experiences, which can mean repeated drug use. As the addiction progresses, the desire to use the substance can override desires for other survival behaviors such as reproduction and attachment to other people. Addiction progresses when individuals fail to develop an advanced degree of self-control (Horvath et al., 2016).

The psychopathological model of addiction states that an array of mental disorders are the cause of addiction (Horvath et al., 2016). Cognitive difficulties and mood disturbances,

amongst other psychological disorders, cause what many believe is an addictive personality. Behaviors such as challenges with impulse control, emotion regulation, and a sense of belonging are common in those with mental illness. There is not sufficient evidence to suggest an addictive personality exists however, approximately half of individuals seeking addiction treatment also have another significant psychological disorder (Miller, Forchimes, & Zweben, 2011).

The learning theory of addiction identifies addiction as a learned behavior (Horvath et al., 2016). This learned behavior can happen through classical conditioning, operant conditioning, and social learning. Classical conditioning occurs when an individual pairs the addictive substance with environmental cues. Operant conditioning involves a system of rewards and punishments and social learning happens when individuals observe others engaging in behaviors they then repeat (Akers & Lee, 1996). From this theoretical perspective, all learned behaviors can be unlearned and new ways of coping with stress can replace the maladaptive behaviors individuals previously participated in.

The cognitive theory of addiction is also referred to as the expectancy theory. From this theoretical view, the individual believes the pros and cons of the unhealthy, addictive behavior will positively outweigh the pros and cons of the healthy behavior so the individual will choose the unhealthy, addictive, behaviors (Blane & Leonard, 1999). This theory refers to an individual with an addiction's propensity to glamorize the drug use and lifestyle, believe unsatisfied cravings to use will result in harm, and believe other healthier lifestyles will result in boredom (Horvath et al., 2016).

The educational model of addiction puts forth that individuals with addiction lack accurate information about the dangers of addictive substance. It is due to their lack of education, these individuals make poor, uninformed decisions about substance use, which results in

addiction (Horvath et al., 2016). Once an individual has the proper information, it will lead them to make healthier, rational decisions.

The temperance model of addiction is relatively simple and explains addiction as the result of exposure to an addictive substance. Many societies, including the United States, uphold this model when designing laws because it is a primary principle in this model is that societies have a duty to limit the availability of addictive substances. An individual's recovery materializes from prevention (Horvath et al., 2016). The general systems theory of addiction values an individual's groups in which they belong and their influence over the individual. These groups can include families, neighborhoods, schools, societies, cultures, peer groups, colleagues, etc. Understanding the group influences will help one understand an individual's behavior (Horvath et al., 2016). This theory is greatly integrated with family programs in addiction treatment centers.

The sociocultural model of addiction states that addictions occur because larger systems permit it. The negative effect of culture and society on an individual's behavior causes addiction (Horvath et al., 2016). For example, in the United States, intoxication is not only tolerated but also considered quite humorous. Media, comedians, artists and other celebrities condone intoxication in a variety of ways. This influence is seen as the cause of addiction.

The public health model of addiction utilizes a three-prong approach to prevention and intervention called the "agent, host, and environment." The host is the susceptible individual, the infectious agent is the addictive substance, and the environment supports the use. This three-prong public health model was originally developed for infectious diseases; however, it now is used for addiction (Duncan, 1975). This model also includes an array of harm reduction

strategies including, methadone maintenance programs, drug consumption rooms, and needle exchange programs (Horvath et al., 2016).

The spiritual model of addiction identifies the experience of disconnect from a Higher Power as the catalyst from which addiction occurs. To end the addictive state one must reconnect with their Higher Power (Horvath et al., 2016). One of the most common examples of this model is Alcoholics Anonymous. Through the 12 Steps, individuals suffering from an addiction enter and maintain a level of recovery and connection they quite possibly have not previously experienced.

Lastly, the bio-psycho-social-spiritual model of addiction finds value in both the scientific and spiritual models. This model believes there are two main categories for the many things influence the development of an addiction: biological forces and environmental influences (Horvath et al., 2016). This model believes all aspects of an addiction are inter-related and need attention to make a full recovery. Due to the comprehensive nature of this model, it is heavily utilized in treatment settings.

Likewise, the *DSM-5* has an integrated view of substance use disorders. Per the *DSM-5*, (APA, 2013) the fundamental feature of a substance use disorder is a cluster of cognitive, behavioral, and physiological symptoms that indicate the individual continues to use the substance despite substantial substance-related struggles. An important characteristic of substance use disorders is an underlying change in brain circuits that may persist beyond detoxification, particularly in individuals with severe disorders. The behavioral effects of these brain changes may be exhibited in the repeated relapses and intense drug craving when the individuals are exposed to drug-related stimuli.

Treatment Models

The model from which one views addiction will influence diagnosis, treatment, and the experience of all affected by the addiction. Treatment centers will focus treatment on different aspects and characteristics of the addiction depending which model they incorporate. Treatment will be focused on different aspects and characteristics of the addiction, family members will treat, be treated, and heal differently. Diagnosis will look differently and possibly come at different times (some early in the progression, others later, some not at all).

Individual.

As previously mentioned, addiction portrays itself in several different ways and can be influenced by many different factors. Factors such as age, socioeconomic status, sex, family support, drug of choice amongst others influence the portrayal of addiction and consequently, what treatment is appropriate for the individual. Factors like: age, race, culture, sexual orientation, gender, pregnancy, housing, employment, financial means, social support structures, trauma, and family support (Principles of Drug Addiction Treatment: A Research Based Guide, 2012) all help determine treatment measures.

To meet all these differing needs, treatment centers need to be comprehensive, flexible, and integrative. The National Institute on Drug Abuse (2012) has outlined the most pressing components of comprehensive drug abuse treatment. The following variables are viewed as necessities to comprehensively treat an individual in addiction treatment: intake processing and assessment, behavioral therapy and counseling, treatment planning, substance use monitoring, clinical and case management, pharmacotherapy, self-help and peer support groups, and continuing care are the core components of a comprehensive treatment approach. Although the setting may vary (i.e. inpatient, intensive outpatient, outpatient) these variables outlines the

crucial components of substance abuse treatment overall. These components are seen as necessary aspects of treatment. They help provide the individual with comprehensive and integrative services.

The National Institute on Drug Abuse (2012) also identified specific components that help individualize treatment for the individual with the addiction's specific needs. These services include: child care, vocational, mental health, medical, educational, HIV/AIDS, legal, financial, housing and transportation, and, lastly, family services. These services help the individual manage more pressing concerns while they receive treatment services, which, in theory, will allow them to focus more on treatment, healing, and making impactful lifestyle changes to ensure a better chance of lasting sobriety. If there are less barriers to treatment they are more likely to go. If a treatment center offers child care, legal support, housing etc. there are less obstacles in their way which allows them to focus on their recovery.

Many different evidence-based approaches are utilized in the treatment of addicted individuals. These can include: behavioral therapy, medication, or a combination (Principles of Drug Addiction Treatment: A Research Based Guide, 2012). Medication Assisted Therapy (MAT) can help individuals manage their substance use disorders as well as many other psychiatric disorders. Medications can reduce the cravings and other symptoms associated with withdrawal from a substance by occupying receptors in the brain associated with using that drug (agonists or partial agonists), block the rewarding sensation that comes with using a substance (antagonists), or induce negative feelings when a substance is taken. MAT has been primarily used for the treatment of opioid use disorder but is also used for alcohol use disorder and the treatment of some other substance use disorders such as tobacco use disorders (C., 2016).

12- Step Facilitation Therapy is a common and useful resource for individual's in this population. 12-Step Facilitation Therapy seeks to guide and support engagement in 12-step programs such as Alcoholics Anonymous or Narcotics Anonymous. Mentorships is highly utilized in 12- Step programs which helps individuals build a sober peer support network and make lasting connections. This, in conjunction with a sober living environment, is commonly required of individuals on probation or involved in the judicial system. Sober living houses are also a beneficial recommendation for those struggling with finding and maintaining a sober residence.

If we shift the view from abstinence being the only predictor and influence in what deems treatment successful, we can truly appreciate the work invested in families. There is a set of positive outcomes broader and more impactful than abstinence from alcohol or a drug that many fail to see (Copello & Orford, 2002).

Family.

A common theme in treatment of affected family members is how to respond to a loved one's problematic drug taking and drinking behavior. Family member's desire to answer many questions and understand what is going wrong in their family and how to positively cope with it are central to their recovery.

Family programs and treatment typically focus on identifying coping behaviors that are not beneficial to the individual family member or the family unit, psycho-education on why these behaviors are detrimental to all involved, and education and practice on how to set new, healthy boundaries. Many times, terms such as co-dependent, detachment with love, boundaries, and assertiveness are used in these treatment sessions which can leave the family feeling defeated and shameful.

Addiction is referred to as a family disease; yet the focus of treatment is most often focused on the addicted individual and not the affected family members. Research shows, affected family members have a higher risk of experiencing physical and psychological ill-health and strain. The focus of family member's involvement in the treatment process is often on the family dysfunction, codependent behaviors, and attributing responsibility in the desperate desire to answer many unanswered questions. Shifting the focus and understanding of addiction treatment to supporting the family, diminishing shame, and focusing on healing the whole family unit will lessen the ill-health and strain of affected family members. Instilling hope, providing good quality social support, and supporting their coping efforts will allow for this healing process to happen.

Research shows not only is social support, at the time of intake into a treatment facility, a positive predictor of retention in treatment but quality social support is an important element of health (Copello & Orford, 2002). Shifting the focus of treatment from the addicted individual to the overall health of the family unit assists getting clients into treatment, maintaining treatment engagement, which then improves the overall family functioning and substance related outcomes, as well as reduce the impacts and harm for family members. Research conducted suggests family members have very differing and interesting views on addiction which give insight into the understanding of how personal experiences shape knowledge about addiction, including acceptance, or rejection of scientific ideas such as the disease model versus the adaptive model and treatment modalities (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015).

Family members often believe their addicted relative developed an addiction because they enjoy taking drugs or used drugs to cope with stress. Other contributing factors include: poor self-esteem, personality, easy access, genetic makeup, brain chemistry, and the individual's

risk-taking tendencies. In addition, the view that addiction is predicated by a traumatic event or events (i.e. childhood bullying, relationship problems) is prominent (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015). Interestingly, few family members endorse learning difficulties or not fitting into 'normal' society as explanations for an individual's addiction and even fewer endorse addiction being caused by marriage breakdowns or re-partnering of parents, or childhood sexual abuse (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015). As previously mentioned, some models, such as the SSCS model, are striving to change the idea of dysfunction and codependency. Shifting from a shameful and 'bad' view to an empowering and survival view (Copello & Orford, 2002).

It appears family members agree there is no one factor that determines the likelihood of addiction and they prefer a multifactorial explanation of addiction, opposed to a reductionist one. They see addiction as the result of a combination of personal choices, psychological factors, traumatic events, and a genetic predisposition. These views of family members are not only interesting but also give great insight into the understanding of how personal experiences shape knowledge about addiction, including acceptance, or rejection, of scientific ideas. Family members display a variety of methods to understand, cope, and respond to a loved one's addiction. As the addiction grows, the family adjusts in a variety of ways.

Commonly, family members believe their addicted relative has developed an addiction because they enjoy taking drugs or used drugs to cope with stress. It is not uncommon for family members to attribute drug and alcohol use to a stressful time or event in the individual's life. Things like divorce, death, abuse or neglect, and childhood bullying are examples of common past traumatic events that family members often attribute to heavy drug and alcohol use (Meurk et al., 2015). Other common contributing factors include: poor self-esteem, personality, easy

access to drugs, genetic makeup, chemistry in their brain, and the fact the individual was seen as a risk taker. However, the view that addiction is caused by a traumatic event or events (i.e. childhood bullying, relationship problems) is prominent. Interestingly, few family members endorse learning difficulties or not fitting into 'normal' society as explanations for an individual's addiction and even fewer endorse addiction being caused by marriage breakdowns or re-partnering of parents, or childhood sexual abuse (Meurk et al., 2015).

Despite differences, it appears family members agree there is no one factor that determines an individual's addiction and they prefer a multifactorial explanation of addiction opposed to a reductionist one as they see addiction as a result from a combination of personal choices, psychological factors, traumatic events, and a predisposition of genes. Although genetic predisposition is a commonly accepted and widely used theory, many family members agree that biology and genetics play a part in addiction however, it is not the cause of addiction and no family members surveyed believed addiction provided an excuse for drug use (Meurk et al., 2015). It is believed there is no single best way of understanding addiction; rather the importance is accepting the validity of multiple perspectives on this complex issue.

Overall, family members agree understanding addiction has helped them better understand this complex issue and helped them throughout their experience with a loved one's addiction. Many attributed understanding addiction and how it is caused to helping them come to terms with and accept their relative's addiction, putting their relative's addiction in perspective, and helping their addicted relative overall.

When it comes to treatment of addiction in a family perspective, many believe understanding the nature and cause of addiction was beneficial to their own wellbeing and emphasize the importance of listening to and understanding their loved one's perspective on their

drug use. Wisdom can be found in their own and other families' experience and many families do not think their understandings of addiction are different from those of health professionals. They prefer an empathetic understanding of addiction rather than a wholly medicalized one and for this they find input from individuals in similar situations valuable (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015).

These findings suggest there may be value in providing families with information about the nature and causes of addiction, focusing on multifactorial causes, as well as connecting them with other individual's in similar situations. Peer connection is a valuable resource to help individuals suffering from the disease of addiction as well as their family members (Ablon, 1974; Daley, 2013; Nowinski, 2011). Self-help groups such as AA, NA, Al-Anon, Smart Recovery etc. provide a valuable resource to help all affected by addiction however, the emphasis still sits with the *individual with the addiction* and their behaviors while minimal attention is focused on the individual family member's experience, education about addiction, or recovery.

Despite the 'family disease' approach, many addiction treatment centers are lacking in the family portion of addiction treatment. As usual, the focus is on the individual with the addiction, the individual with the addiction's behaviors, and reintegration of the individual with the addiction into a functional society. Treatment opportunities that are available for the family are like those available to the addict. Treatment programs and self-help groups are often utilized by family to help initiate their healing process, alleviate their overwhelming feelings, and provide support and direction however, they are far less common and harder to find than services for an individual with an addiction (addicted individual). There are plenty self-help groups,

treatment centers, and detox possibilities when the individual with the addiction is struggling, however, there is a lack of resources or research for recovering family members.

Previous research acknowledges and identifies different stressors families of individuals with substance use disorders experience. Financial difficulties, domestic violence, interpersonal struggles, family discord, and risk to children are all common stressors families experience when a loved one is struggling with addiction (Copello et al., 2009). Despite this research, service responses are generally focused on the addicted individual, with affected family members receiving limited support and resources. This response to the ‘family disease’ ignores not only the family members’ experience but also the fact that family members have their own needs and symptoms that arise from their loved one’s addiction, as previously discussed (Copello et al., 2009).

An overall theme with family member’s experience with an addicted loved one is an innate desire to understand addiction. The programs that are available to family members are usually brief, psychoeducational curriculums aimed to help family members understand and conceptualize something they, themselves, have never experienced firsthand. Obtaining psychoeducational information about addiction has helped families come to terms with, put in perspective, and accept their loved one’s addiction (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015).

Due to differing models of addiction not being accepted across all professions, cultures, or treatment modalities it is understanding family members typically prefer a multifactorial explanation of their loved one’s addiction (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015). Common multifactorial explanations include the belief addiction grows because of many combinations of factors such as: personal choice, traumatic events, genetic makeup, and

psychological elements are all seen to play a role in the addiction (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015).

Over the decades, many models of family therapy have been developed and utilized in addiction treatment. Popular models include: Marriage and Family Therapy, strategic family therapy, structural family therapy, cognitive-behavioral therapy, couples therapy, and solution-focused family therapy (US Department of Health and Human Services, 2013). Although full assimilation of family therapy into typical substance abuse treatment is relatively infrequent there are currently four predominant family therapy models utilized for the treatment and specific interventions for substance abuse. They are: the family disease model, the family systems model, the cognitive-behavioral approach, and multidimensional family therapy (US Department of Health and Human Services, 2013).

The family disease model utilizes the Disease model and views addiction as a disease that affects the entire family. Although there is limited controlled research on the disease model, it is widely accepted in the treatment community as well as the general public (Substance Abuse Treatment for Persons with Co-Occurring Disorders: A Treatment Improvement Protocol TIP 42, 2005). Since this model views addiction as a disease, it believes in the genetic predisposition the Disease model utilizes, which also means it conceptualizes the meaning of family disease. As the family is sick together, it should also heal together.

The family systems model looks at the family's interactions around the substance abuse. For example, if a father only expresses his feelings while intoxicated, the treatment will strive to change the maladaptive communication that relies on substance abuse for stability (Substance Abuse Treatment for Persons with Co-Occurring Disorders: A Treatment Improvement Protocol TIP 42, 2005).

The cognitive-behavioral approach believes maladaptive behaviors are reinforced through family interactions. This treatment will try to change the interactions and target behaviors which trigger substance abuse in hopes to improve communication, problem solving, and strengthen coping skills (Ofarrell & Fals-Stewart, n.d). The multidimensional family therapy (MDFT) is similar to functional family therapy, multi-systemic therapy, and brief strategic family therapy in that they all adopt similar multidimensional approaches. MDFT places emphasis on relationships among cognition, affect, behavior, and environmental input (Lawson & Lawson, 1992).

Newer models, such as the Stress-Strain-Coping-Support (SSCS), are beginning to emerge and drastically shift the view of family substance abuse treatment. The previously mentioned therapeutic models attribute dysfunction or deficiency to family members and often view them in an extreme light. Terms such as codependent and psychopathological are often labelled on the family of addicts (Copello & Orford, 2002) and parents of addictive children are often seen as having done an inadequate job at parenting. The SSCS model looks to remove these negative roles family members have been stereotyped as and view them as average individuals struggling to cope with stressful conditions which are not of their own making. Additionally, the SSCS model seeks to attend to relative's whom typically receive minimal, if any, attention. Such as grandparents, brothers and sisters, and aunts and uncles concerned and affected by a loved one's drug or alcohol use.

Effectiveness of family member's treatment has limited researched. Like addiction treatment, there are many treatment modalities and approaches, not one single approach has been found as the overall answer to effective treatment for family members. When asked, family members can highlight aspects of treatment they have found more effective than others. For example, understanding the nature and cause of addiction has been beneficial to the family member's own

well-being which, emphasizes the importance psychoeducation has on the treatment process. Additionally, family members have also vocalized the importance of listening and understanding their loved one's perspective on their drug use. Like an Alcoholics Anonymous viewpoint, the experience and peer support provides valuable insight, wisdom, and recovery support for affected family members. Sharing experiences and self-examination leading to new insights are seen as the most useful tools family members utilize when recovering from this family disease (Ablon, 1974).

Limitations & Gaps in Treatment

One of the major limitations in many research designs is the inclusion or exclusion of certain substances or process compulsions. This makes it difficult to get a well-rounded, fully encompassed, multidimensional approach in understanding and treating the family disease. Inclusion may prove to be vital to fully understanding the impact, similarities, and differences amongst family interactions as well as identifying mutually predisposing factors (Doba, 2013). For example, the Collaborative Study on the Genetics of Alcoholism revealed evidence for both common and specific addictive factors transmitted in families for alcohol, marijuana, and cocaine dependence, and habitual smoking and suggested independent causative factors in the development of each type of substance dependence (Steinhausen, 2017).

Two of the most commonly reported barriers to providing services to family members from program managers is that treatment was 'too intensive' and 'not typically employed as an adjunct to other services, but rather as a standalone intervention' (Copello & Orford, 2002). Even when interventions are incorporated it appears there is still a glass wall prohibiting full integration into an individual's substance abuse treatment. Fully merging individual and family

treatment from the beginning of treatment will take the sting off the intensity of services perceived by all involved.

CHAPTER III. THE FAMILY RECONNECTION MODEL

Introduction

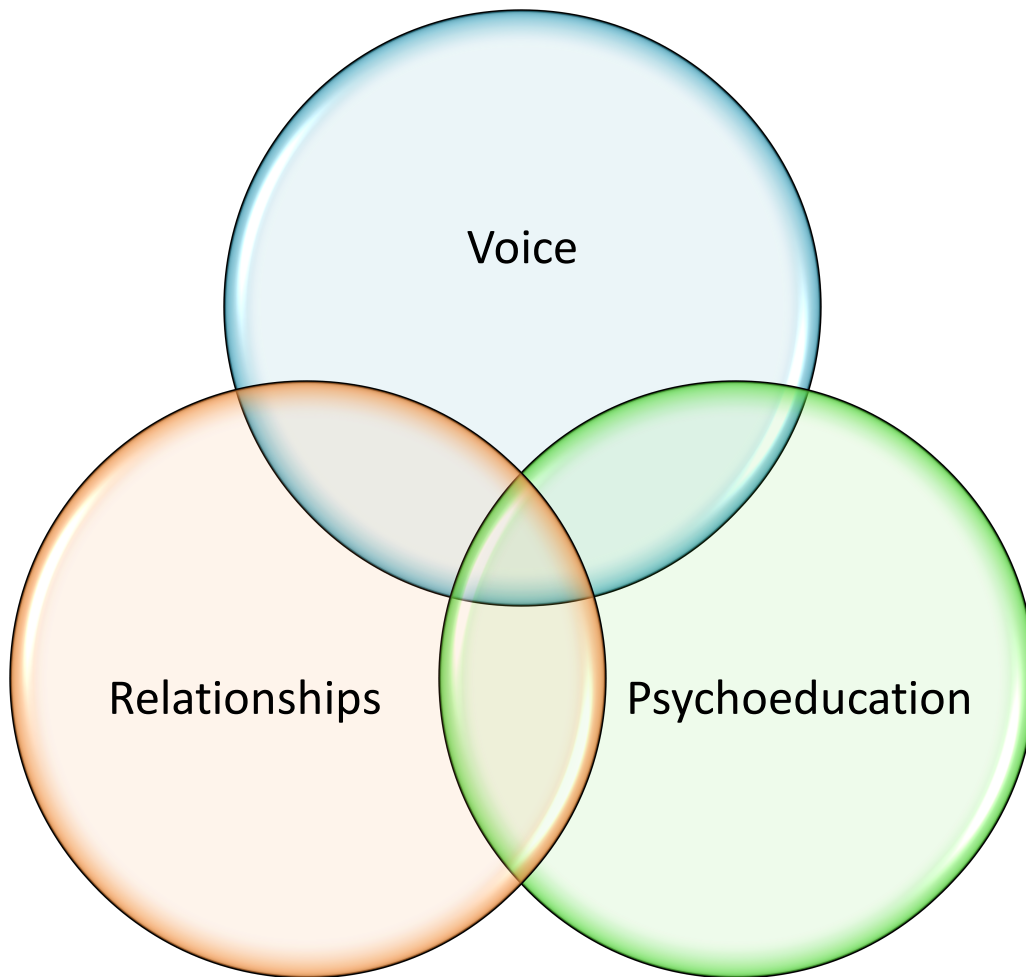
As previously discussed, families that are impaired, physically and mentally, by substance abuse also strain the agencies that support physical and mental health. Addiction contributes to raised healthcare costs, housing instability, homelessness, criminality, higher incarceration rates, high-risk sexual behaviors, premature fatalities, destruction of property, unemployment and the dependence on welfare, and lost productivity amongst other losses. Agencies, such as healthcare systems, social services, criminal justice, and child protective services, are commonly connected to families with substance abuse challenges. This, in turn, creates an economic burden to fund treatment for substance use, medical, and psychiatric disorders, assistances associated with welfare dependence, joblessness, as well as criminal justice and social services involvement (Horvath et al., 2016).

Rationale for the Model

Research concerning family members of individuals with substance use disorders acknowledges and identifies different stressors. Financial difficulties, domestic violence, interpersonal struggles, family discord, and risk to children are all common stressors families experience when a loved one is struggling with addiction (Copello et al., 2009). Despite this research, service responses are generally focused on the addicted individual, with affected family members receiving limited support and resources. This response to the ‘family disease’ ignores not only the family members’ experience but also the fact that family members have their own needs and symptoms that arise from their loved one’s addiction, as previously discussed (Copello et al., 2009). As the research identifies several gaps in family treatment of individuals with an addiction, it is imperative a comprehensive and modern model is implemented. The purposed

model identifies three core components that should be embedded and focused on throughout the treatment of families of individuals with substance use disorders.

The Family Reconnection Model: An Overview



Core Elements of the Model

As society views addiction as a family disease, treatment should include family to treat the disease. As the infected individual needs to heal, so does the family. This proposed model encompasses some of the most important needs families identified when a loved one is suffering from a substance use disorder (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015). The power of the family's voice, psychoeducation, and the relationships or ability to reconnect as a family are important and powerful aspects to help families heal. While these key aspects stand alone, they also intertwine and interact with one another. The model should be viewed as three overlapping circles with each circle growing or shrinking as the family grows and shifts focus as needed.

Psychoeducation

Many families have reflected feeling lost and ignorant to the progression of the disease and substance use culture (i.e. different types of drugs, routes of administration, etc.). Psychoeducation is often the most desired component in treatment of the families (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015) which is why it makes up a sole portion of the triad in the Family Reconnection Model.

In this model, psychoeducation should be implemented throughout all stages of the healing process. Having a better understanding on the variety of components individuals with a substance use disorder and their loved ones go through can be extremely beneficial to the growth and healing of the individual with the addiction and their family. Topics including basic physiological and psychological components that contribute to the beginning and progression of an addiction; how different substances and routes of administration contribute to the disease; different stigmas and how they affect an individual's use, treatment, and healing process; healthy and unhealthy coping strategies; the Stages of Change (Prochaska et al., 1994); and the different

types, stages, and intricacies of treatment can all lead to a more empathetic and knowledgeable understanding of a confusing and hurtful illness. As the family progresses throughout treatment, the topics of the psychoeducation components should reflect the current stage of treatment. For example, education regarding types of drugs and routes of administration should typically be addressed at the beginning of treatment however, it may be beneficial to the family members to continue learning and educating themselves on this topic throughout the duration of treatment. Similarly, although boundary setting is an essential part of treatment and healing, it should not be introduced until the family has a firm understanding of the loved one's addiction and the different components that have led to the progression of the addiction.

Voice

The model's second main component is identified simply as, voice. Voice is characterized by two factors: the individual's voice as well as the voice of the family, collectively. As every individual has their own story and reality it is important to allow space for them all in treatment. Allowing every individual that encompasses the family to give voice to their experience of the addiction, relationships, and understanding of their experience is vital when utilizing The Family Reconnection Model. By developing an individual narrative, the family will learn more about how they function as a unit and the individual will gain awareness in their role and experience in the progression of the disease. Developing this narrative can also assist the individual in connecting with others who have similar experiences and understandings, especially if they are already participating in a community support group (i.e. Alcoholics Anonymous).

The second aspect of the model's voice component is the family's voice collectively. How the family shifted, molded, accepted, or rejected the addiction is important for the family to

have a collective understanding of how their family works. Psychoeducation into family systems may prove useful here and help the family accept the reality of their family system. Coming together to highlight collective experiences, emotions, and resentments will potentially allow the family space to heal and move forward. Bringing attention to the power of the family as a whole will allow the family to recognize their own resiliency, love, and desire to heal.

Relationships

At the core of a family, is relationships. Recognizing all relationships in the family dynamic will help highlight and bring awareness to all the different aspects the family deals with daily. Psychoeducation regarding familial roles, boundaries, and resentments will be important in this third and final component. Through psychoeducation, the family can be viewed as a healthy unit that had to cope with an unhealthy situation. This can help families conceptualize and understand the progression of the addiction and the effects it has had on the family dynamics.

Identifying relationships, roles, boundaries, and resentments will allow the family to conceptualize their unit in unhealthy parts that make up a whole. In treatment, the family relationships should be addressed to help re-establish relationships, re-establish roles, work through resentments, establish healthy boundaries, and implement honest, loving communication. As with the other components to The Family Reconnection Model, the relationships component should be integrated throughout the treatment of the family.

Strengths and Limitations of the Model

The strengths of this model can be found in its simplicity and flexibility surrounding core concepts. This model is not considered a standalone model but more as key components to incorporate and highlight throughout the desired treatment modality which will allow for easy implementation and financial benefits for institutions. This allows the model to be utilized in any

treatment setting (i.e. short-term or long-term, cognitive behavioral based or humanistic settings etc.), and be adjusted to match the needs and make-up of clients (i.e. varying socio-economic status', definitions of family, and members of the family with the substance use disorders). As the family progresses through treatment sessions may be reduced to fit the needs of the family.

Limitations of the model are more concrete. A therapist must have knowledge, understanding, and education regarding the different components to be able to implement them effectively and efficiently. It can be difficult to understand and incorporate all aspects of a family system and addiction physiognomies while providing therapeutic services so the therapist must be competent in the services they are providing. The simplicity of this model may also be considered a limitation to some. Without a strong and defined manual, some clinicians may feel this model has too many aspects that are left up to interpretation. In conclusion, more research should be conducted on the importance and effectiveness of the individual components.

Ethical Considerations

The American Psychological Association guidelines of ethical principles (2016), should be consistently considered and executed throughout the implementation of this model. Specifically, the therapist should ensure they are practicing competence, avoiding conflicts of interest and exploitative relationships, obtain informed consent and appropriate disclosures, maintain confidentiality and privacy, discuss limits of confidentiality, and practice nonmaleficence and beneficence. These ethical standards should serve as a base throughout all treatment and interactions. If the treating therapist needs guidance at any time, it is vital they consult with a colleague or supervisor and seek to further their education and understanding of the ethical principles.

Additionally, all treatment providers involved in addiction services should be cognizant and aware of the Code of Federal Regulations 42 (CFR 42). This ethical consideration directly relates to the special privacy protections related to substance use treatment. As this regulation is different and serves in conjunction to the Health Insurance Portability and Accountability Act (HIPAA), its laws and regulations should be reviewed and abided by in all type of substance use treatment services.

Summary

The need and benefit for family treatment in addiction services has been outlined and researched for many decades and the benefits are well documented. However, there is not a model that can be identified to help in a multitude of treatment environments that solely treats and incorporates the family unit into substance use treatment. A model that has its roots in existing treatment services, be cost efficient, and flexible to family needs is depicted in The Family Reconnection Model. This model integrates and highlights the importance of psychoeducation, individual and collective voices and relationships is imperative to the healing and healthy functioning of family units affected by substance use disorders.

CHAPTER IV. DISCUSSION

Discussion of findings as they relate to original questions

1. What is addiction?

Per DSM 5 (2013) addiction is defined as a substance use disorder which utilizes 11 criteria. Although the criteria are universal, the disorder falls under eight different categories, contingent on the substance used (e.g. alcohol, cannabis, hypnotics etc.) Depending on how many different criteria the individual meets, a level of severity is assigned (mild, moderate, or severe). Additionally, periods of abstinence are defined in regards to how long criteria has not been met.

2. What is a family?

Family is defined by a multitude of factors such as: religion, ethnicity, age, medical status, geographic region, sexual orientation, social status, citizenship status, and national origin. Erera (2002) defines family as an ever-changing and fluctuating term, differing throughout generations and decades mirroring social and economic circumstances as well as the cultural norms of the time. Despite the three recognized categories of families US Department of Health and Human Services (2013), this model utilizes elective family to implement the model. The elective family is anyone the individual with a substance use disorder deems family.

While research suggests, individuals with an immediate genetically associated relative who suffers from addiction, are 50% more likely to develop an addiction of their own (American Society of Addiction Medicine, 2011; Wilcox, 2015). genetics alone do not determine the likelihood of addiction. There are environmental factors that contribute to addiction. The environmental contribution to the disease may suggest that addiction is also a family disease. For example, socioeconomic status, early life physical

victimization, and neighborhood deprivation have been identified as risk factors of the development of substance use disorders later in life (Macleod et al., 2012). Situations and factors, such as these, can create a cycle of substance use and, subsequently, addiction. As the child is affected by their family's substance use or economic factors, their family may be eventually affected by their substance use and economic factors. This is a strong cycle, which is likely hard to break.

3. What is the family's experience with addiction?

The family exhibits many similar symptoms as an individual with a substance use disorder. It has been suggested the 11 criteria outlined in the DSM 5 (2013) could also be applied to the family members. Examples are outlined in Table 2 and include things like a great deal of time is spent in activities involving the individual with the addiction or the addiction itself (i.e. excessive worrying, checking, or obsession) and failure to fulfill major role obligations at work, school, or home due to preoccupation with the individual with the addiction (e.g. missing work because you were up all night worrying about your loved one).

4. What treatment modalities are utilized to treat addiction?

There are many models utilized to help understand addiction. Each model is unique, focuses on different developmental factors, and helps shed light on distinctive aspects of a complicated concept. They are also all heavily critiqued and highly controversial due to differing research, societal, cultural, and generational views. Furthermore, both models contribute in their own way to the stigma, treatment logic, and prognosis of the addicted individual. All current existing models of addictions seek to explain many previously unanswered questions. Two of the most asked questions these

models attempt to answer are: who is responsible for creating the problem and who is responsible for solving it (Brickman et al., 1982). Per Brickman and colleagues (1982), there are four possible answers to these questions that led them to develop their own umbrella of models. The four possible models that address these questions are: Moral, Medical, Enlightenment, and Compensatory. The primary difference between the four models is determined by the locus of control for the addiction.

5. What programs are available for individuals and their families that are experiencing addictions?

Many different evidence-based approaches are utilized in the treatment of addicted individuals. These can include: behavioral therapy, medication, or a combination (Principles of Drug Addiction Treatment: A Research Based Guide, 2012). Medication Assisted Therapy (MAT) can help individuals manage their substance use disorders as well as many other psychiatric disorders.

When it comes to treatment of addiction in a family perspective, many believe understanding the nature and cause of addiction was beneficial to their own wellbeing and emphasize the importance of listening to and understanding their loved one's perspective on their drug use. Wisdom can be found in their own and other families' experience and many families do not think their understandings of addiction are different from those of health professionals. They prefer an empathetic understanding of addiction rather than a wholly medicalized one and for this they find input from individuals in similar situations valuable (Meurk, Fraser, Weier, Lucke, Carter, & Hall, 2015).

Clinical Implications

Due to the flexibility of the Family Reconnection Model the clinical implications can be vast. Incorporating the key components into an existing treatment program has the potential to enhance the services and positive outcomes of the clients. This model does not exhibit a 'one size fits all' modality instead it allows for fluidness, reflexivity, and the needs of the diverse families to help heal from hurt and dysfunction. Including an emphasis on the family's experience and shifting the focus from the individual with a substance use disorder to a family with an unhealthy coping mechanism will shift the outcome of treatment for all.

It is imperative the therapist is cognizant of the safety of all client's involved, has a clear understanding of the American Psychological Association's ethical code, and has formal training in the area of clinical psychology and substance use disorders. Therapist's should exhibit enough self-reflexivity to address any counter-transference that may arise. Supervision, consultation, and education of the therapist are imperative throughout all treatment stages. A therapist should be able to hear diverse experiences of the family which includes culture, ethnicity, and origin. There should always be a respectful sensitivity for family diversity.

Recommendations for Future Research

Although this is a theoretical research model, it would be beneficial to see both qualitative and quantitative research in relation to this proposed Family Reconnection Model. Further qualitative research will allow for more of the family's experience and voice during and after they utilize the Family Reconnection Model. Qualitative research will be able to highlight the change, growth, and challenges throughout the family's journey.

Utilizing mixed method longitudinal research will also allow the effects of the Family Reconnection Model to be seen in a long-term modality. As this model presents a broader representation of vital components of family treatment in the substance use disorder healing, it will prove vital to expand research on each component individually. Expectantly, gaining a full awareness and understanding of each of these components will provide a more robust understanding of the effects they have relationally.

Conclusion

As the research identifies several gaps in family treatment of individuals with substance use disorders, it is imperative a comprehensive and current model is implemented. The Family Reconnection Model identifies gaps in current models and seeks to fulfill them. This model identifies important components that need to be addressed in the treatment of substance use disorders. This model captures the interconnectedness and intricacies between and within families. It is my hope that my model will shed light on similar models and further treatment will continue to address the spectrum of family needs.

REFERENCES

- American Psychological Association. (2016). Ethical principles of psychologists and code of conduct. Retrieved from <https://www.apa.org/ethics/code/>
- Ablon, J. (1974). Al-Anon family groups: Impetus for learning and change through the presentation of alternatives [Abstract]. *American Journal of Psychotherapy*, 28(1), 30-45. Retrieved February 12, 2018, from <http://psycnet.apa.org/record/1974-23706-001>
- Akers, R. L., & Lee, G. (1996). A Longitudinal Test of Social Learning Theory: Adolescent Smoking. *Journal of Drug Issues*, 26(2), 317-343. doi:10.1177/002204269602600203
- Alcoholics Anonymous Big Book: special edition*. (2007). Place of publication not identified: AA.
- Alexander, B. K. (1987). The Disease and Adaptive Models of Addiction: A Framework Evaluation. *Journal of Drug Issues*, 17(1), 47-66. doi:10.1177/002204268701700104
- American Society of Addiction Medicine. (2011, April). Retrieved March 11, 2018, from <https://asam.org/resources/definition-of-addiction>
- Blane, H. T., & Leonard, K. E. (1999). *Psychological theories of drinking and alcoholism*. New York: Guilford Press.
- Branch, M. N. (2011). Drug addiction. Is it a disease or is it based on choice? A review of Gene Heymans Addiction: A disorder of choice. *Journal of the Experimental Analysis of Behavior*, 95(2), 263-267. doi:10.1901/jeab.2011.95-263
- Brickman, P., Rabinowitz, V. C., Karuza Jr., J., Coates, D., Cohn, E., & Kidder, L. (1982). Models of helping and coping. *American Psychologist*, 37(4), 368-384. doi:10.1037//0003-066x.37.4.368
- Chen, G. (2010). The Meaning of Suffering in Drug Addiction and Recovery from the Perspective of Existentialism, Buddhism and the 12-Step Program. *Journal of Psychoactive Drugs*, 42(3), 363-375. doi:10.1080/02791072.2010.10400699
- Copello, A., & Orford, J. (2002). Addiction and the family: is it time for services to take notice of the evidence? *Addiction*, 97(11), 1361-1363. doi:10.1046/j.1360-0443.2002.00259.x
- Copello, A., Templeton, L., Orford, J., Velleman, R., Patel, A., Moore, L., . . . Godfrey, C. (2009). The relative efficacy of two levels of a primary care intervention for family members affected by the addiction problem of a close relative: a randomized trial. *Addiction*, 104(1), 49-58. doi:10.1111/j.1360-0443.2008.02417.x

- Daley, D. C. (2013, December). Retrieved February 19, 2018, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4158844/>
- Diagnostic and statistical manual of mental disorders: DSM-5*. (2013). Washington: American Psychiatric.
- Doba, K., Nandrino, J., Dodin, V., & Antoine, P. (2013). Is There a Family Profile of Addictive Behaviors? Family Functioning in Anorexia Nervosa and Drug Dependence Disorder. *Journal of Clinical Psychology, 70*(1), 107-117. doi:10.1002/jclp.21977
- Duncan, D. F. (1975). The Acquisition, Maintenance and Treatment of Polydrug Dependence: A Public Health Model. *Journal of Psychedelic Drugs, 7*(2), 209-213. doi:10.1080/02791072.1975.10472000
- Erera, P. I. (2002). *Family diversity: continuity and change in the contemporary family*. Thousand Oaks, CA: Sage.
- Fischer, J. L., Pidcock, B. W., & Fletcherstephens, B. J. (2007). Family Response to Adolescence, Youth and Alcohol. *Alcoholism Treatment Quarterly, 25*(1-2), 27-41. doi:10.1300/j020v25n01_03
- Frankl, V. (1946). *Man's Search for Meaning*.
- Gierymski, T., & Williams, T. (2012). Codependency. *Journal of Psychoactive Drugs, 18*(1), 7-13. doi:10.1080/02791072.1986.10524474
- Gillette, R. (n.d.). *Substance Abuse, Co-Dependency and Family Systems Across Generations*. Lecture.
- Gorski, T. T. (2001). Disease Model of Addiction. *GORSKI-CENAPS Web Publications*. Retrieved December 3, 2017, from <https://pdfs.semanticscholar.org/bba5/392b2d576e6f2f9eab61757f56ac0b84f39d.pdf>.
- Hasin, D. S., Stinson, F. S., Ogburn, E., & Grant, B. F. (2007). Prevalence, Correlates, Disability, and Comorbidity of DSM-IV Alcohol Abuse and Dependence in the United States. *Archives of General Psychiatry, 64*(7), 830. doi:10.1001/archpsyc.64.7.830
- Heyman, G. M. (2010). Addiction: A Latent Property of the Dynamics of Choice. *What Is Addiction?*, 159-190. doi:10.7551/mitpress/9780262513111.003.0007
- Horvath, T., Misra, K., Epner, A. K., & Cooper, G. M. (2016). Introduction to Causes of Addiction (C. Zupanick, Ed.). Retrieved March 14, 2018, from https://www.centersite.net/poc/view_doc.php?type=doc&id=48340&cn=1408

- Kojić, T., Dojčinova, A., Dojčinov, D., Stojanović, O., Jakulić, S., Susaković, N., & Gligorović, V. (1977). Possible Genetic Predisposition for Alcohol Addiction. *Advances in Experimental Medicine and Biology Alcohol Intoxication and Withdrawal—IIIa*, 7-24. doi:10.1007/978-1-4899-5181-6_2
- Lawson, G., & Lawson, A. W. (1992). *Adolescent substance abuse: etiology, treatment, prevention*. Gaithersburg, MD: Aspen.
- Liepman, M. R., Flachier, R., & Tareen, R. S. (2008). Family Behavior Loop Mapping: A Technique to Analyze the Grip Addictive Disorders Have on Families and to Help Them Recover. *Alcoholism Treatment Quarterly*, 26(1-2), 59-80. doi:10.1300/j020v26n01_04
- Lipps, A. J. (1999). Family Therapy in the Treatment of Alcohol Related Problems. *Alcoholism Treatment Quarterly*, 17(3), 13-23. doi:10.1300/j020v17n03_02
- Macleod, J., Hickman, M., Jones, H. E., Copeland, L., Mckenzie, J., Angelis, D. D., . . . Robertson, J. R. (2012). Early life influences on the risk of injecting drug use: case control study based on the Edinburgh Addiction Cohort. *Addiction*, 108(4), 743-750. doi:10.1111/add.12056
- Meurk, C., Fraser, D., Weier, M., Lucke, J., Carter, A., & Hall, W. (2015). Assessing the place of neurobiological explanations in accounts of a family members addiction. *Drug and Alcohol Review*, 35(4), 461-469. doi:10.1111/dar.12318
- Miller, N. S., & Giannini, A. J. (2012). The Disease Model of Addiction: A Biopsychiatrist's View. *Journal of Psychoactive Drugs*, 22(1), 83-85. Retrieved December 3, 2017.
- Miller, W. R., Forcehimes, A. A., & Zweben, A. (2011). *Treating addiction: a guide for professionals*. New York: Guilford Press.
- National drug threat assessment 2011*. (2011). Johnstown, PA (319 Washington St., 5th floor, Johnstown 15901-1622): National Drug Intelligence Center, U.S. Dept. of Justice.
- National Household Survey on Drug Abuse (NHSDA). (n.d.). Retrieved March 10, 2018, from <http://www.lgbtdata.com/national-household-survey-on-drug-abuse-nhsda.html>
- National Institute on Drug Abuse. (2010). Comorbidity: Addiction and Other Mental Illnesses. Retrieved April 10, 2018, from <https://www.drugabuse.gov/sites/default/files/rrcomorbidity.pdf>

- National Institute on Drug Abuse. (2012, December 14). Health Consequences of Drug Misuse. Retrieved April 11, 2018, from <https://www.drugabuse.gov/related-topics/health-consequences-drug-misuse>
- National Institute on Drug Abuse. (2014). Retrieved April 11, 2018, from <https://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/introduction>
- National Institute on Drug Abuse. (2016). The Science of Drug Abuse and Addiction: The Basics. Retrieved April 11, 2018, from <https://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics>
- National Institute on Drug Abuse. (2017, April 24). Trends & Statistics. Retrieved April 11, 2018, from <https://www.drugabuse.gov/related-topics/trends-statistics#costs>
- National Institute on Drug Abuse. (2018, January). Principles of Effective Treatment. Retrieved from <https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/principles-effective-treatment>
- National Institute on Drug Abuse. (2018, January). Retrieved April 11, 2018, from <https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/preface>
- Nowinski, J. (2011). *The family recovery program: a professional guide*. Center City, MN: Hazelden.
- Ofarrell, T. J., & Fals-Stewart, W. (n.d.). Behavioral Couples Therapy for Alcoholism and Drug Abuse. *PsycEXTRA Dataset*. doi:10.1037/e388172004-011
- Orford, J., Templeton, L., Copello, A., Velleman, R., Ibanga, A., & Binnie, C. (2009). Increasing the involvement of family members in alcohol and drug treatment services: The results of an action research project in two specialist agencies. *Drugs: Education, Prevention and Policy*, 16(5), 379-408. doi:10.1080/09687630802258553
- Orford, J., Velleman, R., Copello, A., Templeton, L., & Ibanga, A. (2010). The experiences of affected family members: A summary of two decades of qualitative research. *Drugs: Education, Prevention and Policy*, 17(Sup1), 44-62. doi:10.3109/09687637.2010.514192
- Orford, J., Copello, A., Velleman, R., & Templeton, L. (2010). Family members affected by a close relatives addiction: The stress-strain-coping-support model. *Drugs: Education, Prevention and Policy*, 17(Sup1), 36-43. doi:10.3109/09687637.2010.514801

- Pickard, H., Ahmed, S. H., & Foddy, B. (2015). *Alternative models of addiction*. Frontiers Media S.A. Retrieved from https://www.hannapickard.com/uploads/3/1/5/5/31550141/alternative_models_of_addiction.pdf
- Pierre du Plessis, G. (2010). The Integrated Recovery Model for Addiction Treatment and Recovery. *Journal of Integral Theory and Practice*, 5(3), 68-85. Retrieved March 10, 2018, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2998241.
- Pinheiro, R. T., Pinheiro, K. A., Magalhães, P. V., Horta, B. L., Silva, R. A., Sousa, P. L., & Fleming, M. (2006). Cocaine Addiction and Family Dysfunction: A Case-Control Study in Southern Brazil. *Substance Use & Misuse*, 41(3), 307-316. doi:10.1080/10826080500409167
- Population Data / NSDUH Read more about NSDUH and types of publications >. (n.d.). Retrieved March 10, 2018, from <https://www.samhsa.gov/data/population-data-nsduh/reports?tab=35>
- Principles of drug addiction treatment: a research-based guide*. (2012). Rockville, MD: National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services.
- Prochaska, J. O., Diclemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *Addictive behaviors: Readings on etiology, prevention, and treatment*, 671-696. doi:10.1037/10248-026
- Prochaska, J. O., Velicier, W. F., Rossi, J. S., Goldstein, M. G., Marcus, B. H., Rakowski, W., . . . Rossi, S. R. (1994). Stages of change and decisional balance for 12 problem behaviors. *Health Psychology*, 13(1), 39-46. doi:10.1037//0278-6133.13.1.39
- Results From the 2013 National Survey on Drug Use and Health: National Findings. (n.d.). *PsycEXTRA Dataset*. doi:10.1037/e592592009-001
- Ronel, N., & Haimoff-Ayali, R. (2009). Risk and Resilience. *International Journal of Offender Therapy and Comparative Criminology*, 54(3), 448-472. doi:10.1177/0306624x09332314
- Saah, T. (2005). The evolutionary origins and significance of drug addiction. Retrieved March 14, 2018, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1174878/>

- Slesnick, N., & Prestopnik, J. L. (2004). Office versus Home-Based Family Therapy for Runaway, Alcohol Abusing Adolescents. *Alcoholism Treatment Quarterly*, 22(2), 3-19. doi:10.1300/j020v22n02_02
- Stedman, T. L. (2006). *Stedmans medical dictionary*. Lippincott Williams & Wilkins.
- Steinglass, P. (2008). Family Systems and Motivational Interviewing: A Systemic-Motivational Model for Treatment of Alcohol and Other Drug Problems. *Alcoholism Treatment Quarterly*, 26(1-2), 9-29. doi:10.1300/j020v26n01_02
- Steinhausen, H., Jakobsen, H., & Munk-Jørgensen, P. (2017). Family aggregation and risk factors in substance use disorders over three generations in a nation-wide study. *Plos One*, 12(5). doi:10.1371/journal.pone.0177700
- Stinson, F. S., Grant, B. F., Dawson, D. A., Ruan, W. J., Huang, B., & Saha, T. (2005). Comorbidity between DSM-IV alcohol and specific drug use disorders in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Drug and Alcohol Dependence*, 80(1), 105-116. doi:10.1016/j.drugalcdep.2005.03.009
- Substance Abuse and Mental Health Services Administration. (2014, June 20). Retrieved April 11, 2018, from <https://www.samhsa.gov/atod>
- Substance Abuse and Mental Health Services Administration. (2015). *Substance abuse treatment and family therapy*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.
- Substance abuse treatment for persons with co-occurring disorders: a treatment improvement protocol TIP 42*. (2005). Rockville, Md: U.S. Department of Health and Human Services.
- The Effects of Alcohol Use. (2017, May 26). Retrieved March 10, 2018, from <https://drugabuse.com/library/the-effects-of-alcohol-use/>
- The Merriam-Webster dictionary*. (2012). Springfield, MA: Merriam-Webster.
- Volkow, N. D., & Koob, G. (2015). Brain disease model of addiction: why is it so controversial? *The Lancet Psychiatry*, 2(8), 677-679. doi:10.1016/s2215-0366(15)00236-9
- Watkins, K. E., Hunter, S. B., Wenzel, S. L., Tu, W., Paddock, S. M., Griffin, A., & Ebener, P. (2004). Prevalence and Characteristics of Clients with Co-Occurring Disorders in

Outpatient Substance Abuse Treatment. *The American Journal of Drug and Alcohol Abuse*, 30(4), 749-764. doi:10.1081/ada-200037538

What is the Jellinek Curve? (2016, September). Retrieved March 12, 2018, from <http://www.hazeldenbettyford.org/articles/jellinek-curve>

Wilcox, S. (2015, April). Family History and Genetics. Retrieved March 11, 2018, from <https://www.ncadd.org/about-addiction/family-history-and-genetics>

Williams, J. F., Smith, V. C., & ABUSE, T. C. (2015, November 01). Fetal Alcohol Spectrum Disorders. Retrieved from <http://pediatrics.aappublications.org/content/136/5/e1395>

Wurmser, L. (1974). Psychoanalytic Considerations of the Etiology of Compulsive Drug use. *Journal of the American Psychoanalytic Association*, 22(4), 820-843. doi:10.1177/000306517402200407