Dharma Life Sciences LLC

Etiology of Addiction: Personality Traits

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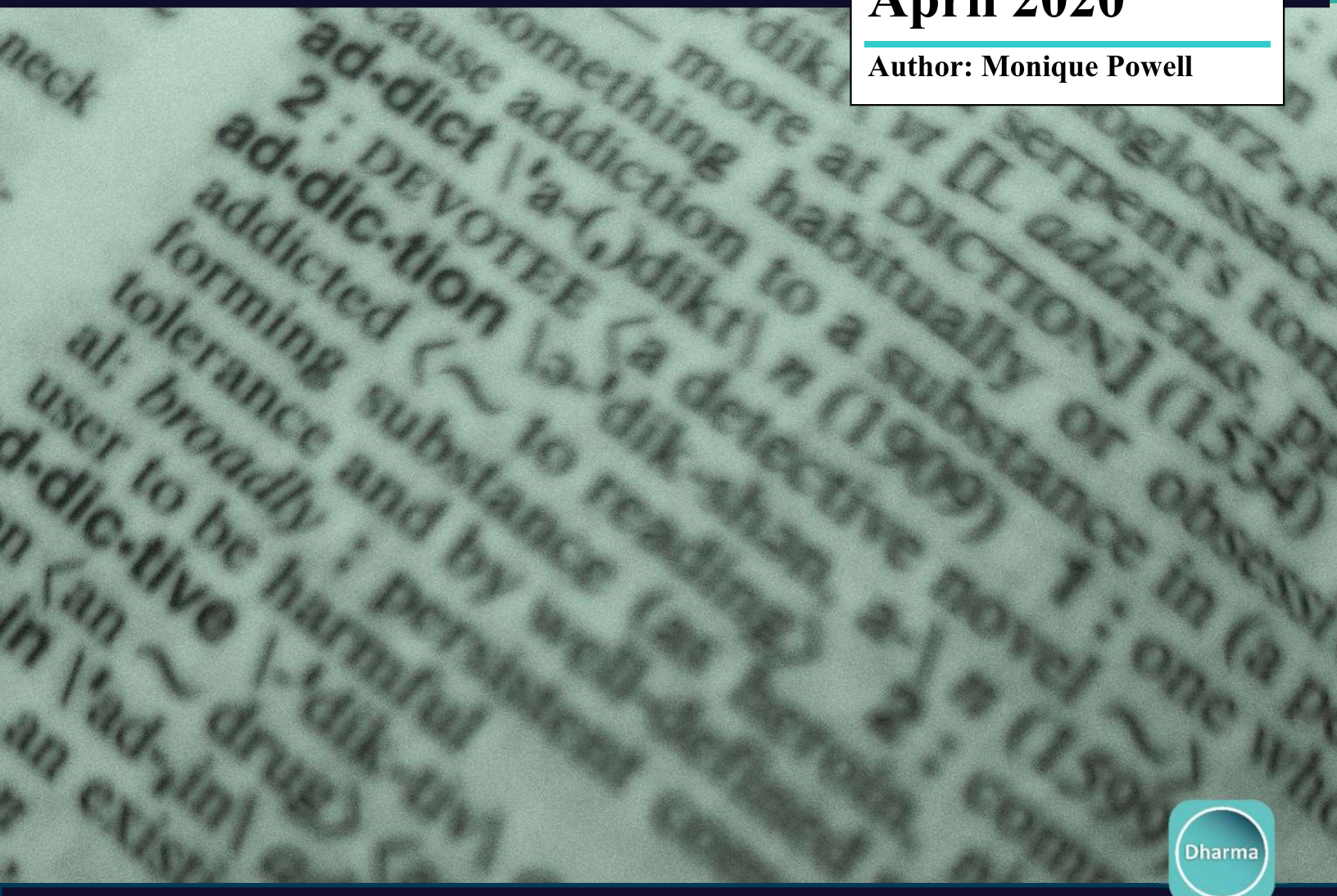


Summary

For addiction, the notion of an "addictive personality" has long been disputed. Nonetheless, research suggests there are strong associations between personality traits and addiction of various types. These same personality traits are predictive of addiction, with impulsivity and neuroticism taking the lead. This supports two propositions related to the etiology of personality. First, addiction is partially rooted in low levels of self-control. Second, addiction is also rooted in the need to suppress negative affect and/or undesirable states caused by these emotions. With these considerations, we detail below why our personality-based intervention should be integrated into addiction centers.

Table of Contents

Introduction
3
Complications
4
The Importance of Understanding Addiction Etiology
4
Overarching link Between Personality and Addiction
4
The "Addictive Personality"
5
Profile of Substance-Based Disorders: Substance Abuse and Alcoholism
5
Profile of Behavioral Addictions: Shopping, Gambling, and Others
7
Mapping Dharma Traits to the "Addictive Personality"
8
Revisiting the Two Causes of Addiction
9
Call to Action
9
Contact Page
10

Introduction

Addiction can be conceptualized as the excessive use of a substance or engagement in a behavior

> **"for which the rewarding effects provide a compelling incentive to repeat the activity, despite detrimental consequences (American Psychiatric Association, 2017)."**

In more or less words, it is a pattern of behavior oriented towards a stimulus, and positively reinforced by one's dependence on the stimulus and/or perceived positive rewards. One can distinguish addiction into two types—substance and behavioral. Substance-based addictions are commonly known to include alcoholism, and illicit-drug use while behavioral addictions are known to include gambling, internet, sex and shopping behavior. It is roughly estimated that behavioral addictions (e.g. eating, gambling, internet, sex, and exercise) have a prevalence of 2-3% (Sussman, Lisha & Griffiths, 2011). The frequency of substance-based addictions (e.g. alcohol, cigarette, illicit drug) is even more prevalent, standing at roughly 5-15% of the population (Sussman, Lisha & Griffiths, 2011).

Complications

Addiction facilitates complications of many variants. For example, with substance abuse, it is common for a drug user to experience elevated blood pressure and heart rate, which in turn increases their risk of stroke, heart attack, and even death. It is likely that an addiction prone individual will have legal complications due to increased risk-taking behaviors and the illegality of the substance. Certain addictions such as gambling can also place a financial strain on the individual, ultimately allowing for debt or bankruptcy. Additionally, addiction prone individuals are more likely to face interpersonal struggles. Oftentimes, the object of addiction will take priority over other obligations—leading to strained relationships with friends, family, or coworkers.

The Importance of Understanding Addiction Etiology

Given the breadth of ways addiction causes complications in one's life, it is important one understands the etiology of addiction as to achieve two things—proper prevention and proper treatment. Genetic, social, and environmental factors all interplay to create the right conditions for addiction to occur. However, research shows that people with specific personality traits are especially susceptible to addiction and to the influence of these other predispositions. Thus, it is important that we shine a light on personality's role in the development of substance and behavioral addictions.

Overarching Link Between Personality and Addiction

Of the factors that contribute to addiction, personality is a factor that is significant, yet overlooked. Combinations of certain personality traits give way to addictive behaviors and tendencies. For instance, a metanalysis revealed impulsive behavior, via delay discounting (the valuing of immediate drug effects over long-term benefits such as

health and family), significantly predicted addictive behaviors (Argyriou, Um, Carron, & Cyders, 2018). Gumpta & colleagues (2006) even found the more prominent traits associated with gambling addiction were, the more severe the gambling cases, suggesting a direct relationship between trait level and addiction severity. There are two ways in which research establishes personality traits as a precursor to addiction. First, the research offers support for the "Addictive personality." This is the notion that someone with specific personality traits is more at risk of developing an addiction. Extending from this idea, is the second notion that personality traits predisposes one to a condition, through which they may need a stimulus to cope; and addiction provides the stimulus.

The "Addictive Personality"

The Addictive Personality consists of a personality profile that distinguishes those who are most likely to develop an addiction from those who won't. Although the personality profiles differ based upon the type of addiction, indisputably, impulsivity is common to all of the profiles. Below, we outline the personality profiles of addiction and personality's significance to its onset.

Profile of Substance-Based Disorders: Substance Abuse and Alcoholism

Across several studies, substance use disorder has been linked to impulsivity. Mitchell & Potenza (2014) found strong associations between impulsivity and substance abuse via their review. One of such studies surveyed the behavioral component of impulsivity, known as risk-taking behavior. To see whether risk-taking behavior was predictive of cocaine use, Mitchell & colleagues (2014) designed a paradigm that consisted of rats, and levers that delivered varying amounts of food—one of which offering the possibility of being shocked upon the receipt of the most food pellets. They then observed which group engaged in cocaine use. There was a

significantly greater likelihood of cocaine intake among the risk-taking group compared to the risk aversive group—suggesting a predisposition to cocaine use when one has risk-taking tendencies. Evidence that impulsivity underlies drug abuse is further shown by the differential performance on a stop-signal reaction task (Ersche et al., 2012). The stop-signal reaction task measured inhibitory control, or how likely one can suppress an inappropriate action. Stimulant-dependent users *and* their nondependent siblings not only performed worse on this task, as compared to the control group, but were also found to have similar brain impairments. The fact that non-addicted sibling's performance mirrored that of their addicted counterparts suggests that impulsivity, in the form of inhibitory control, precedes addiction.

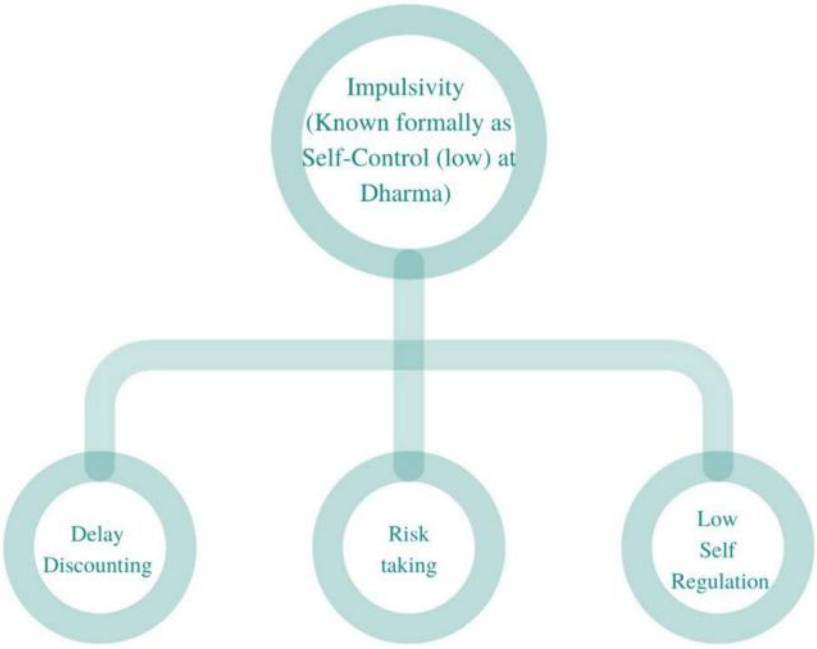
Alcohol addiction has been associated with high levels of impulsivity, high levels of neuroticism, and other personality constructs. Gross and Carpenter (1971) investigated whether an alcoholic personality did in fact exist. After assessing 266 alcoholics in an Alcoholic Treatment Program, they found stark differences between this group and the general population—providing evidence for an alcoholic personality. One of such differences were alcoholics' higher levels of emotional instability. This finding was further evidenced by Zilberman and colleagues (2018). Among their participant pool those with alcohol use disorder (AUD) differed from the control group by having higher levels of neuroticism and additionally higher levels of impulsivity. For this addiction type, they also reported lower levels of extraversion, and lower levels of openness to experience compared to the control group. Given levels of openness and extraversion are what distinguishes AUD from other types of addictions (i.e. gambling addiction, sex addiction), it is suggested that alcohol for some is used to reduce feelings of anxiety in social situations. In this case, personality traits associated with sociality may serve as a predisposition to alcohol abuse.

Profile of Behavioral Addictions: Shopping, Gambling, and Others

Research on shopping addiction aligns with other findings on impulsivity. Jiang, Zhao, & Li (2017) found a negative correlation between online shopping addiction and self-control such that the lower the levels of reported self-control, the higher the online shopping behavior score. Rose & Dhandayudham (2014) also reported 7 predictors of online shopping addiction, many of which connect to personality constructs. Of these predictors, low self-regulation, negative emotional state, and low self-esteem were factors that showed personality's role in addiction. Low self-regulation tied closest to low levels of self-control/ impulsivity and in this context is "managed by a limited set of resources (i.e. cognitions, emotions or behaviors) that the individual draws on to control their responses." Additionally, negative emotional state and low self-esteem are motivators for addictive shopping as a means to alleviate negative affect. Whereas the first predictor aligns with the direct links established between impulsivity and addiction, the latter predictors align with the less direct links, which is that certain personality traits predisposes one to a negative condition which is then alleviated by the development of an addiction.

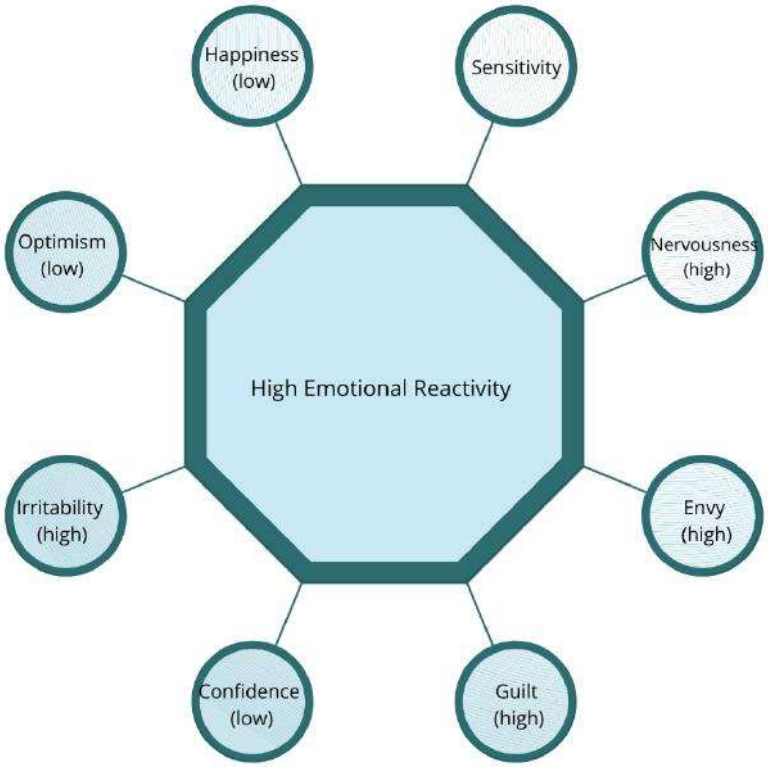
From the profiles established by Zilberman and colleagues (2018), the remaining behavioral addictions had common links with some variation. What distinguished those with gambling disorder from those without it was high impulsivity and neuroticism scores. Those with sex addiction had the same profile as those with drug use disorder. Compared to the non-addicted control group, they had high impulsivity and neuroticism scores, and lower conscientiousness and agreeableness scores. From the patterns established in this and the aforementioned studies, high levels of impulsivity and neuroticism are components that are consistent across addictions and therefore deserving of some mediation.

Mapping Dharma Traits to the "Addictive Personality"



The traits that are commonly seen throughout addiction research are impulsivity and neuroticism. There are several traits we identify and mediate that directly relate to these addiction traits. Concepts such as delay-discounting, risk-taking behavior, and low self-regulation all fall under impulsivity, but are not to be used interchangeably. These different constructs are manifestations of the Dharma trait, Self Control (low). We likewise mediate traits that fall under neuroticism, which is best known as a measure of a person's emotional reactivity to a situation. Those who have higher levels of neuroticism tend to have heightened and persistent negative responses in times of stress. This maps best to the following Dharma traits:

Nervousness(high), Irritability (high), Happiness (low), Confidence (low), Optimism (low) Envy (high), Guilt(high), and Sensitivity.



Revisiting the Two Causes of Addiction

Addiction can be caused by one's inability to control impulses or by the need to subdue an undesirable emotional state. Although most commonly, the two causes work together to create addictive behaviors. Let's take sensitivity as an example: sensitivity is characterized by the amplification of sensory, social, and emotional cues. A person with this trait has a heightened emotional response to both positive and negative experiences. Sensitive individuals may disproportionately react to negative life events to the point where it consumes them. Substance or alcohol abuse can be used as a mechanism that de-amplifies this negative life event in the form of escapism. By disassociating from the problem, a sensitive person no longer has to be consumed by their negative emotions, therefore supporting the notion that addiction is a coping mechanism for undesirable states. Because sensitive individuals are heavily influenced by their emotions, their decisions are often emotion-based. This is where impulsive behaviors surface. Emotion-based decision making coupled with the need to de-amplify a stimulus motivates the individual to indulge in whichever behavior rewards them. As such, both negative emotional states (dictated by Nervousness(high), Irritability (high), Happiness (low), Confidence (low), Optimism (low), Envy (high), Guilt(high), or Sensitivity) and impulsivity (dictated by Self Control (low)) create the conditions needed for addiction to occur.

Call to Action

It's clear that personality traits are significant predictors of addiction via impulsivity and negative emotionality. This knowledge demonstrates the need for personality-based interventions at addiction centers. Personality-targeted interventions have been shown to be effective in reducing drinking behavior (Conrod, Castellanos-Ryan, & Mackie, 2011), and must take trait severity into consideration

to prevent the likelihood of relapse (Gumpta et al., 2006). With more severe personality traits come greater rates of relapse. Relapse prevention therefore depends on the reduction of trait severity—a process already integrated into our program. If you run an addiction center and are interested in demoing our online therapy tools to supplement your intervention, please refer to our contact page below.

Contact Us

If interested, please contact us at:

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Citations

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