

An Introduction to Behavioral Addictions

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THE HISTORY OF BEHAVIORAL ADDICTIONS

The concept of behavioral addictions is a new and revolutionary concept in American psychiatry. History is replete with sagas of disordered gambling and sex addiction. In ancient Greece, where organized gaming was part and parcel of daily life, Emperor Commodus possessed hedonistic and irresponsible gambling habits that may have contributed to the decline of the Roman Empire (Hekster, 2002). In the 1812 edition of the first American text on mental illness, Benjamin Rush, the founder of the American Psychiatric Association, called attention to the potentially pathological nature of excessive sexual desire (Rush, 1812). But it was not until 2010 that the Diagnostic and Statistical Manual Work Group for the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-5), added the term *behavioral addictions* to the set of official psychiatric diagnoses. Their proposals documented a new era in the conceptualization of addictions. The work group argued that the phrase *addictions and related disorders* was a more appropriate descriptor than the old terms *substance abuse and dependence*. They argued that not all people who were dependent on substances were addicts (i.e., cancer patients requiring opiates) and that addiction was much more than physiological dependence. They reminded clinicians that cravings and the illicit and/or ego-dystonic behaviors commonly associated with addictions are more critical to making the diagnosis than mere dependency. In fact, the distinction between substance abuse and dependence was ultimately eliminated in the DSM-5, and criteria were provided for *substance use disorder* that no longer included a substance-related legal criterion, and focused on cravings and out-of-control behavior (American Psychiatric Association, 2013). More importantly, the work group noted that the emerging neuroscience supported a unified neurobiological theory of

addictions, regardless of the specific addictive substances, substrates, or activities, which now allowed for inclusion of behavioral as well as chemical addictions.

This line of thinking was evident with the inclusion of Gambling Disorder in the Non-Substance-Related Disorders category of Substance-Related and Addictive Disorders in the *DSM-5*, published in May of 2013—a shift from its previous categorization in “Impulse-Control Disorders Not Elsewhere Classified” in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision (*DSM-IV-TR*) under the name Pathological Gambling ([American Psychiatric Association, 2000](#)).

Internet-related behavioral addictions were also at issue in the drafting of the *DSM-5*. A behavioral addiction called Internet Addiction Disorder was proposed based on the work of researchers like Ran Tao and colleagues ([Tao et al., 2010](#)). The proposed diagnosis shared key features with substance abuse, such as salience in one’s emotional and cognitive processing, pursuit of the addictive behavior for the purpose of mood modification, the development of tolerance, the experience of withdrawal, tremendous conflict over the behavior, and relapse despite one’s best intentions. Based on the current evidence available, the DSM work group on this topic determined that more research was needed on Internet addiction, but included Internet Gaming Disorder in the appendix to the manual, which is focused on conditions for further study ([American Psychiatric Association, 2013](#)). As Dr. Charles O’Brien noted in his Foreword to this book, other behavioral addiction subcategories, including sex addiction, exercise addiction, and shopping addiction, were considered for the substance-related and addictive disorders section of the *DSM-5* but were not included in this publication due to a lack of current peer-reviewed evidence to establish the diagnostic criteria to classify them as new mental disorders ([American Psychiatric Association, 2013](#)).

This book starts with a discussion of the overlapping factors of impulsivity and compulsivity in behavioral addictions, as illustrated by kleptomania (*DSM-5* classified as an impulse control disorder but also understood clinically as a behavioral addiction). The text then addresses gambling, Internet (i.e., online gaming, Internet addiction, and social networking addiction), food, sex, love, shopping (i.e., compulsive buying disorder), and exercise addictions. We have included a chapter that presents the evidence for spiritual approaches, from 12-step fellowships to meditation and breathing techniques derived from yoga. We conclude with a chapter on the legal implications of the new diagnoses. The authors define each behavioral

addiction according to criteria specific to that disorder—more possible in some cases of behavioral addiction than others based on the current research and consensus—and then discuss the current epidemiological and theoretical literature and the contemporary “best practices” for assessment and treatment. Most of the chapters include case vignettes to bring these disorders to life.

DEFINING AND DETERMINING CRITERIA FOR A BEHAVIORAL ADDICTION

The [American Psychiatric Association \(2013\)](#), World Health [Organization \(2008\)](#), and American Society for Addiction Medicine (2010) have acknowledged the existence of behavioral addictions to varying degrees and with different, but similar, clinical criteria. Operationally, one of our authors, Mark [Griffiths \(2005\)](#) builds on other researchers’ consensus to define a behavioral addiction by six core components: salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse. *Salience* means the behavior becomes the most important activity in a person’s life and tends to dominate his or her thinking, feelings, and behavior. *Mood modification* refers to the emotional effect the behavior has on the individual which often serves as a coping strategy and is reported as the arousing “rush” or the numbing or the tranquilizing “escape” the behavior provides. *Tolerance* is the process whereby increasing amounts of the behavior are required to achieve the former mood-modifying effects, often meaning greater periods of time are spent engaging in the behavior, and/or there is a desired escalation in the intensity, recklessness, destructiveness, and ego-dystonic nature of the behavior. *Withdrawal symptoms* are the unpleasant feeling states and/or physical effects (e.g., the shakes, moodiness, irritability) that occur when the person is unable to engage in the behavior. *Conflict* references discord between the person and those around him or her (i.e., interpersonal conflict), conflicts with other activities (i.e., social life, work, hobbies, and interests) or from within the individual him- or herself (i.e., intrapsychic conflict and/or subjective feelings of loss of control) that are concerned with spending too much time engaging in the addictive behavior. *Relapse* addresses the tendency for repeated reversions to earlier patterns of excessive behavior to recur and for a common return to the most extreme patterns of excessive behavior soon after periods of control.

The chapters address the nuances of these factors, and the reader is directed to Chapter 6 about social networking for a particularly eloquent

and complete outline of these factors. Additionally, Chapter 13 about exercise addiction works to differentiate neurobiological, psychological, and behavioral etiological theories with regard to this specific addiction, but in a way that is apt and useful for understanding a variety of behavioral addictions, particularly with regard to the authors' discussion of negative reinforcement of behaviors.

What makes a behavior—even a behavior in excess—qualify as an *addiction*? Even with alcohol and substance abuse, patients may be defined as suffering from abuse or addiction, yet tolerance and withdrawal are often lacking. Many behaviorally addicted patients defend their actions with the claim that they are simply healthy enthusiasts who have been unfairly labeled by others—doctors, parents, spouses, the police, etc. To complicate the issue further, behavioral addictions involve “normal” drives—highly rewarding and reinforcing drives toward sex, food, love, and money—which are only considered addictions when the behaviors reach a certain degree of excess and self-harm.

The self-help, 12-step fellowships emphasize the loss of control and unmanageability of the behavior and simplify the definition to “the use of a substance or activity, for the purpose of lessening pain or augmenting pleasure, by a person who has lost control over the rate, frequency, or duration of its use, and whose life has become progressively unmanageable as a result” (as quoted in [Denizet-Lewis, 2009](#), p. 8). Our book's authors repeatedly make the point incisively, stating that “the difference between an excessive healthy enthusiasm and an addiction is that healthy enthusiasms add to life whereas addictions take away from it” ([Griffiths, 2005](#), p. 195). The authors of Chapter 4 on problematic online gaming bring additional research findings into the discussion and delve further into the topic of how behavioral addictive processes are differentiated by tending to serve a compulsive drive to stem dissatisfaction from not engaging in the behavior versus enhance enthusiasm by engaging in the process.

Additionally, as we begin to hear more and more in the media about a particular politician or certain celebrity's unsavory behavior, questions such as “but does she or he have an *addiction*?” are interjected into the discourse. Yet excessive (or in some cases, embarrassing) behavior does not warrant the diagnosis of behavioral addiction, but rather the *individual's inability to curtail the activity despite the negative consequences* is what stands as the hallmark of the addiction process.

In summary, addictive behaviors and process addictions serve to produce pleasure, provide escape from emotional or physical discomfort, and are

characterized by powerlessness (i.e., an inability to control the behavior) and unmanageability (i.e., significant negative consequences resulting from the behavior) (Goodman, 1990). This notion has been long supported in addiction research as well endorsed by self-help movements.

But expert opinion is not enough. Throughout the book, our authors critically examine the research and assessment scales that can be helpful for clinicians to utilize directly for diagnostic or research purposes as well as to inform their clinical interviewing and “detailed inquiry” with patients (Sullivan, 1954). While the scales may not be without caveats, as many suffer from a lack of consensus about the criteria that distinguish the given behavioral addiction, the assessments that are referenced in the chapters help the reader better understand the clinical criteria of the disorder and how to evaluate patients in research and practice. As explained in the chapter on sex addiction, addictions often co-occur, and act synergistically. Often, the patient can best be described as having an Addiction Interaction Disorder, a term coined by Carnes et al. (2005) and elaborated on in Chapter 9.

THEORIES AND EVIDENCE IN SUPPORT OF BEHAVIORAL ADDICTIONS

Biopsychosocial Model

We understand behavioral addiction through the lens of the *biopsychosocial model*—understanding the phenomenon as an interplay of factors: biological (i.e., genetic predispositions, the resulting effects of addiction in the brain), psychological (i.e., emotional, behavioral, and cognitive factors), and sociocultural (influences of one’s family, friends, and broader culture). This model has been widely accepted in the chemical addiction field, as well as the burgeoning area of behavioral addictions (Donovan & Marlatt, 2005; Griffiths, 2005).

Neuroscience Research

Operationally, there are at least three neurobiological models for the addictive cycle, each emphasizing different aspects of brain function.

1. *The Reward/Executive Function model* is based on a theory that alterations in the mesolimbic system and medial frontal cortex perpetuate the addictive cycle. Activation of dopaminergic neurons in the Ventral Tegmental Area (VTA) projecting to the nucleus accumbens creates the drug high and initiates addiction. Repeated exposure to substrates of abuse enhances glutaminergic projections to the prefrontal cortex; alters neuroanatomy, gene expression, and synaptic transmissions; and forges

neural pathways that lead to addictive responses. This neuroplasticity found in the prefrontal cortex in rodents and correlative brain scans in humans explains the addict's relentless and self-destructive yearning, long after the initial rewards are experienced, when the intellect and reasoning of the prefrontal cortex should clearly recognize that the costs of the addiction far outweigh the benefits (O'Brien, Volkow, & Li, 2006).

2. The neuropsychological literature has provided us with models proposing that addiction results from vulnerabilities and malfunctions in the organism's decision-making process. Neuropsychologists Redish, Jensen, and Johnson (2008) developed an extensive computational model in which addictions develop when fast, reward-based networks replace slower, more discriminating networks. Their scholarly paper suggests that addicts are under the influence of dysfunctional, fast connections that have been learned and practiced. A related theory is derived from positive psychologist Mihály Csíkszentmihályi (1990) who coined the term *optimal flow*—a mental state of full immersion and energized focus. In the book *Flow: The Psychology of Optimal Experience*, Csíkszentmihályi proposes that certain “optimal flow” altered states are seen commonly in athletics and other endeavors associated with intense mental focus, wherein the individual becomes the captive of a certain order of psychic energy, fully and deeply immersed and engaged, so much so that the passing of time is nearly ignored. During the process of the addictive cycle—from the cravings, through the preparation, to the procurement of the substance or process of abuse—Carnes advances the concept that the patient be viewed as lost in a perverse and destructive form of “optimal flow” (as cited in Rosenberg, Carnes & O'Connor, 2013).
3. A third, related set of contemporary neurobiological theories involves *cellular memory*. Protein kinase M zeta (PKMzeta) is a molecule that is both necessary and sufficient for the maintenance of long-term potentiation (LTP) and long-term memory storage (Sacktor, 2011). PKMzeta activity in the accumbens core is a critical cellular substrate for the maintenance of memories of reward cues. Interfering with this memory molecule causes rats to “forget” long-term addiction-related cues. Environmental cues previously paired with morphine, cocaine, or high-fat food (but not opiate withdrawal symptoms) were abolished by inhibition of the protein kinase C isoform PKMzeta in the nucleus accumbens core of rats (Li et al., 2011). A memory-extinction procedure that decreases drug craving is associated with alternations in PKMZeta cellular activity (Xue et al., 2012).

The neuroscience of addiction is not without its detractors. Psychiatrist Sally Satel eloquently argues that the brain science is far from scientific (Satel & Lilienfeld, 2010). She argues that the fact that willpower and the threat of jail can deter—and even prevent—addictive behaviors casts the whole notion of a neurobiological model of addiction into question. Her point is well taken; however, in most nonpsychotic psychiatric conditions, such as depression or obsessive-compulsive disorder, the clinical manifestations can be temporarily restrained or overcome by leverage or threats, and a biological theory does not preclude influence from psychological and environmental factors. In fact, such external cues may help regulate the genetic and protein products associated with a psychiatric condition.

Proponents of behavioral addictions propose that these contemporary models of chemical addiction apply to addictive behaviors. Potenza (2006) and Tao et al. (2010) propose similar neurobiological models for problem gambling and Internet addictive disorder, respectively. In chromosomal linkage studies of problem gambling, Potenza (2006) found evidence for a reward deficiency model of lower normal activation of the mesolimbic structures among pathological gamblers, noted by abnormalities in the D2A1 allele of the D2 dopamine receptor gene. Grant and Odlaug further address problematic gambling in Chapter 3 of this book, whereas Internet addiction disorder and its related controversies are overviewed in Chapter 5.

In Chapter 9, the authors speculate about the neuroscience of sex addiction. Among the many studies cited, the authors note that Grant and Steinberg (2005) found compulsive sexual behavior occurred in 19.6% of 225 patients with problem gambling, suggesting similar biological and psychological processes are associated with both addictive behaviors. In 70.5% of those with co-occurring disorders, compulsive sexual behavior predated pathological gambling, suggesting that the sex addiction and problem gambling may share similar fundamental brain dysfunctions. A unitary hypothesis is further supported by the fact that patients treated with dopaminergic agents for idiopathic Parkinsonism commonly developed new onset pathological gambling and sexual compulsivity (Bostwick et al., 2009).

The neurobiology of food addiction is addressed in Chapters 7 and 8. Our authors elaborate on the contributions of Gearhardt et al. (2010), Wang, Ding, et al. (2004), and others who have proposed that hyperpalatable, hedonic, and reinforcing foods may cause addiction in vulnerable individuals. Gearhardt et al. (2010) cite that animals given intermittent access to sugar exhibit behavioral and neurobiological indicators of withdrawal and tolerance, and rats consuming high sugar and fat diets demonstrate reward

dysfunction associated with drug addiction. The similarities between drug abuse and food addiction have been studied by [Johnson and Kenny \(2010\)](#) in obese rats. They found that obesity was associated with progressive deficits in neural reward response, similar to changes observed in cocaine or heroin abusers that are crucial in triggering the transition from casual to compulsive drug-taking. The authors found downregulation of striatal dopamine receptors in obese rats, similar to findings in chemically addicted humans, and concluded that overconsumption of palatable food triggers adaptive responses in brain reward circuits and drives the animal toward compulsive eating. In humans, diminished striatal dopamine receptor availability and striatal dysfunction have been associated with obesity ([Wang et al., 2001](#)) and weight gain ([Stice et al., 2008](#)).

In Chapter 13 on exercise addiction, the authors detail several prevailing biological theories on the impact of exercise: the *runner's high* hypothesis in which beta-endorphins are released after intense exercise; the *thermogenic regulation hypothesis*, which emphasizes the soothing increases in body temperature associated with exercise; and the *catecholamine hypothesis* in which exercise reduces the stress response. With these and other theories, the authors try to explain how exercise may shift from a healthy pastime into a harmful compulsion in vulnerable individuals.

In Chapter 10 on love addiction, the author explains how the biological drive for pair-bonding, associated with oxytocin and vasopressin release in the nucleus accumbens and ventral pallidum, respectively, may constitute a basis for romantic love. She details the evolutionary development of pair-bonding and the drive toward monogamy, mediated by dopamine. The author writes that romantic love has all the makings of a behavioral addiction and writes that it can be viewed as a “natural addiction that can have profound social, economic, psychological, and genetic consequences (both beneficial and adverse).” While successful love is seldom viewed as a problem, love gone awry, complicated by trauma, infidelity, divorce, and/or rejection, can lay the groundwork for dysfunctional neural networks and what the author calls “rejection addiction.”

Psychological Underpinnings

Psychodynamic principles as well as ideas from motivational interviewing and cognitive behavioral theory inform the psychological underpinnings of behavioral addiction. While psychodynamic factors are referred to throughout and elaborated here, much of the current evidence-based treatment has been in the form of cognitive behavioral treatment (CBT) studies.

In Chapter 2, Cuzen and Stein continue these introductory remarks to elaborate how impulsivity and compulsivity help explain behavioral addiction, but note that the constructs are better understood as orthogonal, intersecting factors, rather than as opposite ends of an impulsive-compulsive spectrum. The authors illustrate this with a discussion of kleptomania as well as by outlining an “ABC model,” citing various studies that illustrate how affect, behavioral addiction, and cognitive control are intertwined. They reference multiple studies in which affect, particularly negative affect and depression, are implicated in models of addiction, both to processes and substances.

Various motivational and personality factors are discussed throughout this volume on behavioral addictions (particularly in the chapters related to online and Internet-related disorders), which bring aspects of social and personality psychology into the discussion; however, the most attention is paid to impulsivity and compulsivity, as these traits are frequently implicated in theories of addiction (Brewer & Potenza, 2008). A number of authors in this volume suggest that high levels of impulsivity may catalyze the addictive process, promoting further behavior with immediate pleasurable, reinforcing rewards (e.g., hyperpalatable foods, sex, pleasure from gaming or gambling), despite one’s awareness of later negative consequences. The addictive cycle is also fueled by the compulsion to continue engaging in the behavior—a compulsion that can serve to ward off the negative consequences and/or repercussions (e.g., negative affects of remorse or depression, craving), or to provide distraction from legal, relational, intrapsychic, occupational, or other consequences.

Although not all psychologists from psychodynamic or psychoanalytic backgrounds would debate the role of impulsivity and compulsivity in those with addiction, Dodes (2002) in *The Heart of Addiction* challenges these personality attributions, in turn expanding the dialogue. Dodes contends that it is not necessarily addicted individuals’ impulsive traits that explain their behavior (as they can often delay efforts to engage in the addictive behavior beyond the point they were triggered), but rather that urges to engage in the behavior are better understood psychodynamically as “a consequence of inner conflict at a particular moment” (p. 101).

Essig (2012) is also a psychoanalyst who addresses such internal conflicts, in the context of Internet addiction and excessive gaming, but in ways that are more broadly applicable. He works to differentiate the symptom from the *meaning* of the symptom and describes behavioral addiction as a “failed solution” (Essig, 2012). He acknowledges the neurobiology as

well as the psychodynamics, noting the rewarding effects of dopamine released during such activities, but also that by engaging in the excessive behavior, the individual responds with a flawed response to a psychological conflict. The author asserts that the behavioral addict is both trying to avoid something (e.g., negative affect) and is self-deluded into the belief that his or her addictive behavior (e.g., Internet use, online gaming) will completely fulfill his or her interpersonal needs—something Essig and his interpersonalist colleagues believe that only more genuine human interaction can truly provide. He describes this latter phenomenon as “simulation entrapment” (Essig, 2012, p. 1177) and also references the feelings of shame that often plague so many individuals struggling with behavioral addictions. Shame, in a dynamic sense, not only may be seen as a consequence of the addictive behavior, but also may suggest masochistic and self-defeating personality traits in some patients that are related to their ongoing addictive behaviors.

This line of thought opens up the idea of addiction—to substances and processes—as serving a maladaptive coping purpose to the individual and points to a central psychological theme of behavioral addiction referred to throughout this book: *affect dysregulation*.

A common theme across behavioral addictions is the comorbidity with mood and anxiety disorders as well as some personality disorders. Each chapter in the book works to address comorbidity within the given behavioral addiction, and Chapter 13 about compulsive buying disorder (CBD) also highlights the role low self-esteem can play in this behavioral addiction, a factor often seen across the range of disorders in this category. Although the overlap with regard to etiology remains unclear, affect dysregulation as a common psychological component is widely accepted in understandings of behavioral addiction. These patients’ inability to modulate and/or contain their negative affect leads to seeking engagement in an addictive behavior to help them emotionally self-regulate. Essentially, people use their addictions to help decrease the intensity of their emotions or to rid themselves of their feelings altogether (McDougall, 2001).

Bromberg (2001) and other psychoanalysts explain that this difficulty with affective regulation leads to *dissociation* whereby the individual puts out of consciousness different aspects of him- or herself in the form of thoughts, feelings, and experiences, past and present. This is in line with the desire for escapism or numbing that often fuels the addictive process, and can be a result of various traumatic experiences from an individual’s development.

Social Factors

An elaborate discussion of the various social, spiritual, and cultural factors that comprise this aspect of the biopsychosocial model are beyond the scope of this chapter's introductory remarks on behavioral addiction; however, it should be noted that these factors are always relevant for understanding behavioral addiction, and more so, for placing and understanding the individual patient within his or her sociocultural context.

Although this book is strengthened by a global set of authors based around the world, from Hungary to the United Kingdom to India to Israel to South Africa, and those in the United States, in America, in particular, behavioral addiction exists within a paradox. It is the land of plenty—inundated with availability of food, steeped in a culture of instant gratification, bombarded with advertising for all sorts of products—and a major producer of pornography; yet there is the backdrop of cultural morality influenced by the country's Puritan founders. Many of the authors throughout this book's pages, including those writing about food addiction, Internet addiction, and compulsive buying disorder allude to these dynamics. [Denizet-Lewis \(2009\)](#) in *America Anonymous* also highlights the cultural factors inherent to behavioral addictions, noting that whereas in France sex or food addiction are not widely accepted phenomena, in China a prevailing view is of Internet or video game addiction as a “moral failing demanding punitive action” (p. 9) that has resulted in labor camps and intense efforts to address these addictive behaviors, often without true treatment as a core goal.

The U.S. has been quicker to accept the idea of behavioral addiction, and incorporated the extensive 12-step recovery movement (further addressed in Chapter 14) into its fabric, but in America—and elsewhere—a lack of willpower or other character failing has often been pointed to as a culprit of behavioral addiction, further fueling the stigma and shame often associated with it ([Coleman, 1992](#); [Denizet-Lewis, 2009](#)), rather than promoting a more nuanced understanding of the biopsychosocial forces at work in addictive behavior.

GUIDING PRINCIPLES FOR THE TREATMENT OF BEHAVIORAL ADDICTIONS

The guiding treatment principles that this book endorses for addressing behavioral addictions are inherently integrative. This is particularly highlighted in Chapter 7 about food addiction where a psychiatric researcher, an author with a public health background, a psychologist, and a nutritionist

teamed up to address the research and treatment literature on the topic. It is our opinion that a targeted multimodal, multidisciplinary treatment that allows for individual, group, family (or conjoint) therapy (as elaborated in Chapter 11); medication management (when necessary); and adjunct treatments such as self-help groups or mindfulness-based techniques such as meditation (as elaborated in Chapter 14) will be the most cohesive and effective way to follow a biopsychosocial model and help patients recover from behavioral addictions.

Treatment can vary between an “abstinence-based” model (see [Carnes, 2010](#); [Carnes, Carnes & Bailey, 2011](#)) or an approach that leans more on harm reduction (see [Marlatt, 1998](#); [Tatarsky, 2002](#)). Defining abstinence is more complicated in behavioral addictions. Unlike chemical addiction in which the patient generally completely avoids the substances, in the case of behavioral addictions, each recovering patient may have his or her own particular set of behaviors that must be avoided (i.e., “bottom-line behaviors” as they are called in 12-step fellowships). For instance, just like the abstaining alcoholic needs to avoid ceremonial toasts, the abstinent sex addict may need to have the pornographic TV options blocked from his or her hotel room. On the other hand, abstinence for sex addicts does not mean avoiding sex (doing this altogether falls into the category of *sexual anorexia*); rather, it means avoiding the dysfunctional sexual activity. For many food addicts, abstinence may mean taking bread or other foods off the menu (and off the table, quite literally).

Harm reduction is typically viewed in the addiction field as a more perilous path, and may be the treatment contract when the patient refuses to abide by an abstinence-based model. From a harm reduction perspective, a patient trying to moderate his or her social networking addiction may access problematic sites but agrees to limit the time and frequency. A food addict may limit the consumption of triggering carbohydrates to once a week. More challenging for many clinicians would be a sex addict insisting upon continuing to visit prostitutes but doing so less frequently and after agreeing to take safety precautions. Treatment contracts and approaches are discussed throughout the book. Agreeing on the definition of what constitutes recovery *is* the art of psychotherapy, which must be individualized according to the needs of the patient and the comfort of the therapist.

With regard to the specifics of psychotherapy, motivational interviewing ([Miller & Rollnick, 2002](#)) is often helpful in individual or group formats in the early stages of addiction treatment, where high levels of ambivalence are common. This approach encourages the clinician to remain teamed up with

the patient, and to “roll with resistance,” to help the patient take more ownership and experience more empowerment with regard to his or her health decisions and recovery process, rather than being pushed into the position of defending him- or herself against punitive authority figures and/or those concerned others in the patient’s life asking the patient to change. There are a variety of techniques in motivational interviewing, but often exploring the positive effects and the consequences of the behavior and highlighting discrepancies are key.

Cognitive behavioral therapy (CBT) is often the most advocated treatment for behavioral addiction because it is the most researched and evidence-based. This method involves therapist and patient discussing the maladaptive thoughts and behaviors in the context of the addictive behavior, coming up with competing strategies and linking them with deeper themes and core cognitions (see [Ryan, 2013](#)). Patients work to identify their patterns of abuse and addiction, avoid or better manage high-risk situations, and engage in alternative, more adaptive substitute behaviors. “Slips” are explored as learning experiences, and relapse prevention modules are also added once the behavior is in remission to shore up gains and prevent against future backslides (see [Marlatt & Donovan, 2005](#)). Dialectical behavioral therapy (see [Linehan, 1993](#)) is also often utilized or integrated with CBT. This is further discussed in Chapter 7 on food addiction.

Psychodynamic psychotherapy, particularly that from an interpersonal/relational orientation, addresses the patient’s affect regulation issues as well as meaning of the symptoms, and as discussed previously, how they function as a “failed solution” for negotiating conflicts around genuinely relating to others ([Essig, 2012](#)). More specifically, in their introduction to *Hungers and Compulsions: The Psychodynamic Treatment of Eating Disorders*, [Petrucelli and Stuart \(2001\)](#) highlight the compulsive or addicted person’s difficulty in self-regulation and how psychodynamic therapy offers for the therapeutic relationship to become a valuable tool that helps patients learn to shift from the world of their relating to the addictive process to the more interpersonal, relational realm—as vulnerable and challenging as that may be, as dissociation has been their method to avoid the challenges or pain of certain relationships and interpersonal experiences. By using “detailed inquiry” ([Sullivan, 1954](#)) into the addictive experience to understand the roots and meaning of it, the patient works through the symptoms and learns to develop new, more adaptive strategies and coping skills. It is important to stress that most, if not all, psychodynamic treatment for behavioral addictions should be integrative in nature, incorporating useful techniques from

cognitive behavioral and relapse prevention therapy models (Connors, 2001).

Throughout the book, authors propose the use of psychiatric medications such as traditional antidepressants, anti-obsessive-compulsive medications, antipsychotics, mood stabilizers, anxiolytics, and attention deficit medications. In addition to the psychiatric medications that may treat associated psychiatric disorders, some of the authors propose the use of anti-addiction medications such as *N*-acetylcysteine (NAC), a glutamate-modulating agent that has also been found to be helpful in chemical addictive disorders. Our authors write that the most promising antibehavioral addiction medications may be the opiate antagonists naltrexone and nalmefene, which presumably act by interfering with reward center pathways, given in combinations with other anti-addiction drugs such as the GABA_B agonist baclofen and the glutamate antagonist and anticonvulsant topiramate (Chapter 8 elaborates this topic specific to research on treatment for food addiction, overeating and obesity).

SOCIETAL AND LEGAL ISSUES

One of the concerns about legitimizing behavioral addictions as a psychiatric disorder is the fear of pardoning or excusing criminal behavior. In Chapter 15, an American attorney outlines such possibilities and proposes guidelines for the medical or mental health expert witness testifying in court about patients presumed to have behavioral addictions.

Still, some may worry that this book helps create new disorders that are nothing more than medical labels for bad behavior. Can stealing now be diagnosed as kleptomania? Irresponsibly accumulating debt diagnosed as compulsive buying? Financial recklessness diagnosed as gambling? Viewing child porn viewed as cybersex addiction? And so on. These considerations must be acknowledged. Practically speaking, at least in the sex-related addictions, the diagnoses tend to lengthen and toughen jail and prison sentences, as some of the stiffest prison sentences surround the crime of downloading child porn, with incarceration exceeding a decade in many cases—sentences that are often more severe than those for child molestation in the same jurisdiction. Hence, the evidence thus far suggests that, at least for sex addiction, a clinical diagnosis may not be helpful in avoiding incarceration.

While a sex addiction diagnosis, for example, is unlikely to pardon an offender, it can help safeguard society. Since the 1980s, Fred Berlin and his

colleagues at Johns Hopkins, often treating incarcerated patients, have demonstrated that a sexual diagnosis and appropriate treatment are indicated for clinically ill sex offenders (Berlin, 1981).

But the point that as mental health professionals we may be pardoning or excusing criminal behavior is well taken. Surely, it is preferable for the philandering husband to call himself a sex addict and for the irresponsible shopper to call herself a compulsive buyer. The societal implications of the behavioral addiction diagnoses are—and should be—a matter for continual concern.

In sum, it is our hope that the existing body of research, this book, and the studies yet to come will further contribute to the understanding of behavioral addiction and foster rigorous research and treatments that will meet the thresholds of the scientific method and the medical model. Moreover, we hope that the patients will be served—those millions of people around the world often suffering in isolation, shame, and ignorance.

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