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# Self-discontinuity in behavioral addictions: A psychodynamic framework<sup>★</sup>

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### ABSTRACT

Models based on substance use criteria have been employed to classify maladaptive engagement in various everyday activities as genuine addictions. However, symptom-based models have potential limitations, which includes in some cases reduced clinical utility and an increased risk of diagnostic inflation. The current article presents an alternative psychodynamic theoretical framework to elucidate the psychological processes underlying the development of putative behavioral addictions. According to this framework, behavioral addictions are conceptualized as strategies for regulating overwhelming feelings rooted in childhood trauma. Exposure to childhood trauma may lead to the segregation of unbearable trauma-related mental states from awareness through persistent dissociative processes. Thus, behavioral addictions may provide individuals with an illusory sense of control over unbearable feelings while simultaneously reinforcing the segregation of trauma-related mental states. The compulsive engagement in such activities can be seen as an attempt at self-medication, though it ultimately exacerbates discontinuities in self-experience. This theoretical framework is further illustrated through a clinical vignette, highlighting its implications for both assessment and treatment.

# 1. Introduction

In recent decades, numerous efforts have been made to classify excessive and dysfunctional engagement in certain activities. Specifically, these patterns of behavior have often been classified as addictive disorders, positing that they share similar processes and characteristics with substance use disorders (Goodman, 1990; Griffiths, 2005; Marks, 1990). Current nosological classification systems have included only a few of these putative addictive behaviors. The revised fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR; American Psychiatric Association, 2022) categorizes gambling disorder within the chapter on "substance-related and addictive disorders" and identifies Internet Gaming Disorder as a condition that requires further research. The eleventh edition of the International Classification of Diseases (ICD-11; World Health Organization, 2019) includes both gambling disorder and gaming disorder under "disorders due to addictive behaviors." However, extensive research has been conducted to investigate addictive engagement in a variety of common activities, such as sexual behaviors (Andreassen et al., 2018), smartphone use (Lin et al., 2016), food consumption (Gordon et al., 2018), Argentine tango dancing (Targhetta et al., 2013), shopping (Andreassen et al., 2015), and exercise (Lichtenstein et al., 2014; Lichtenstein & Jensen, 2016), as well as in common experiences, such as love (Costa et al., 2021). The conceptualization of these everyday activities and common experiences as genuine addictive behaviors has raised concerns among scholars, resulting in an ongoing debate about their diagnostic and clinical validity.

## 2. Challenges in diagnosing behavioral addictions

The proliferation of novel behavioral addictions has often relied on a symptom-based, atheoretical and confirmatory approach, which encompasses three steps: (a) a specific activity is preemptively identified as a putative behavioral addiction based on anecdotal observations; (b) screening tools are then developed to assess the putative behavioral addiction using traditional substance use disorder criteria; and (c) studies are conducted to explore the role of known risk factors that contribute to the development or maintenance of substance use

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disorders in the putative behavioral addiction (Billieux et al., 2015). The main limit of this approach seems to lie in the fact that it allows scholars to claim the diagnostic validity of an unlimited number of putative addictive behaviors (Flayelle et al., 2022).

Another significant limitation of symptom-based models is that substance use disorder criteria do not directly apply to behavioral addictions. Notably, efforts to adapt substance use criteria for behavioral addictions often result in vague definitions. For instance, substance possess chemical properties that can induce dependence, which manifests through tolerance and withdrawal. Tolerance refers to the need to increase the dose to achieve the desired effect or experiencing a reduced response to the usual dose, while withdrawal encompasses physical, cognitive, and emotional symptoms when substance use is decreased or discontinued (American Psychiatric Association, 2022). In the realm of behavioral addictions, tolerance is typically conceptualized as an escalation in certain aspects of the activity (e.g., increased time spent, frequency of engagement) or by the urge to obtain better equipment (e.g., software, computers) to achieve the desired effect. Withdrawal is generally understood as the onset of negative emotional states (e.g., irritability, restlessness, or anxiety) when the individual is unable to engage in the activity. However, tolerance and withdrawal, as generally defined in the field of behavioral addictions, may be common experiences under certain circumstances, depending on an individual's characteristics (e.g., a strong passion for a specific activity), potentially revealing limited clinical utility (Castro-Calvo et al., 2022; Starcevic, 2016). Additionally, the poor specificity of these criteria raises the question of whether tolerance and withdrawal might manifest differently depending on the specific behavioral addiction. For example, can it be hypothesized that withdrawal symptoms may include hunger in cases of food addiction, separation anxiety in love addiction, muscle pain in exercise addiction, or sexual arousal in sex addiction? Cognitive, emotional, and physical aspects of these putative behavioral addictions may overlap with normal activities, making it difficult to distinguish between pathological and non-pathological engagement.

Furthermore, an additional limitation of symptom-based models is that certain criteria for substance use disorders do not adequately reflect critical features of behavioral addictions. Research has shown that some symptoms may be more accurately described as peripheral features of maladaptive engagement in various activities, such as gaming, social media use, and pornography use (Bőthe et al., 2020; Charlton & Danforth, 2007; Fournier et al., 2023). Moreover, high engagement in certain activities does not necessarily equate to addictive behaviors (Deleuze et al., 2018; Flayelle et al., 2019; Musetti et al., 2019).

In fact, studies investigating whether risk factors for substance use are common to behavioral addictions face a methodological challenge when these same factors may also increase vulnerability to various clinical symptoms. For example, previous research showed that emotion dysregulation is not only associated with substance use and putative behavioral addictions (e.g., Estévez et al., 2017; Garke et al., 2021; Hoover et al., 2022) but also with a wide range of other clinical symptoms (e.g., Christ et al., 2019; Mansueto et al., 2024; Yap et al., 2018). It is noteworthy that the excessive engagement in or involvement with the behavior may serve as a compensatory - and temporary - strategy for coping with psychological difficulties (Castro-Calvo et al., 2021; Kardefelt-Winther, 2014; Kardefelt-Winther et al., 2017) or it may be better explained by other mental disorders (Schimmenti, 2023a). In such circumstances, applying substance use disorder criteria to assess behavioral addictions may result in the overpathologization of everyday activities or the misidentification of overlapping diagnostic entities. In this respect, Kardefelt-Winther and colleagues (2017) proposed four exclusion criteria to avoid overpathologization in the behavioral addiction field: (a) another disorder better explains the behavior; (b) the behavior is voluntarily undertaken despite its negative consequences; (c) the behavior does not cause significant functional impairment or distress; and (d) the behavior serves as a coping strategy.

Therefore, although symptom-based models have promoted a

substantial body of research that has enabled the identification of potential risk factors for putative behavioral addictions, these models may lead to the creation of diagnostic entities with limited clinical utility. The challenges in conceptualizing behavioral addictions based on substance use disorder criteria underscore the need for alternative theoretical models that can elucidate the psychological processes underlying maladaptive engagement in certain activities and its associated symptoms.

Various process-based models have been developed to illustrate the potential mechanisms leading to the onset of specific behavioral addictions. For example, Blaszczynski and Nower (2002) proposed that classical and operant conditioning are critical mechanisms underlying the development of gambling disorder and that specific biological and psychological factors may distinguish different profiles of gamblers. Dong and Potenza (2014) suggested that problematic gaming is characterized by three cognitive domains, including heightened reward sensitivity, reduced executive control capacities, and disadvantageous decision-making. Other process-based models provide a potential explanation of various addictive behaviors. Perales and colleagues (2020) identified negative and positive reinforcement as relevant mechanisms in the onset of putative behavioral addictions. Especially, two pathways may lead to putative behavioral addictions: (a) the transition from goal-oriented behaviors to compulsive behaviors; and (b) the utility of putative addictive behaviors in achieving highly relevant subjective outcomes which leads to the overriding of other nonmaladaptive behaviors. Additionally, the Interaction of Person-Affect-Cognition-Execution (I-PACE) model (Brand et al., 2019) posits that addictive behaviors arise from the interactions between predisposing factors (e.g., temperamental features or behavior-related needs), cognitive and affective responses, and executive functions (e.g., inhibitory control). A core tenet of this model is the role of conditioning processes, which drive the transition from rewarding to habitual behaviors by enhancing cue reactivity and craving, alongside other mechanisms such as the reduction of stimuli-specific inhibitory control, changes in expectations, and usual coping strategies. These processbased models may assist clinicians in identifying both early and later stages of putative behavioral addictions, as well as in designing more effective preventive programs and clinical interventions. However, models primarily based on learning mechanisms may lead clinicians to overlook the psychological function that a specific activity serves in an individual's functioning beyond its capacity to provide gratification or relief from negative experiences. This oversight could potentially result in the misclassification of seemingly compulsive behaviors as behavioral addictions. This limitation may also extend to process-based models that consider common risk factors for various mental disorders, such as the I-PACE model.

Based on these premises, the current work presents a psychodynamic framework that may explain the motivations underlying maladaptive engagement in substance use or certain activities, taking into account the specific function that the substance or activity serves in an individual's psychological functioning.

# 3. Overarching vulnerabilities and self-medication

While there is no consensus on whether excessive or maladaptive engagement in everyday activities constitutes genuine addictive behaviors, it is widely recognized that these activities are often undertaken to achieve significant mood alterations, temporary relief from distress, or to cope with psychosocial difficulties (e.g., Brand et al., 2019; Griffiths, 2005; Kardefelt-Winther, 2014). Thus, the relationship between individuals' needs and the effects of certain activities on their functioning is a critical factor in explaining addictive or compensatory behaviors. The self-medication hypothesis, developed to explain the motivations underlying substance addiction (Khantzian, 1997, 2003, 2012), can help elucidate this relationship.

The self-medication hypothesis posits that substance addiction is

driven by using substances to relieve suffering through their effects (Khantzian, 2003). Khantzian (1997) argued that poor self-regulation predisposes individuals to addiction, viewing substance abuse as an attempt to avoid or manage unbearable feelings. Impairments in self-regulation encompass: a) difficulties in representing, regulating, and expressing feelings; b) poor cohesion of the sense of self and related deficits in self-esteem; c) difficulties in establishing satisfactory relationships and feeling a sense of connection with others, which may manifest as counter-dependent tendencies; and d) deficits in self-care, as demonstrated by an inclination to engage in risky behaviors (Khantzian, 2003, 2012). From this perspective, substance addiction is not merely a coping strategy for temporary relief from distress; rather, it serves as a means to medicate one's own vulnerabilities.

Caretti and colleagues (2018) suggested that both substance and behavioral addictions are closely related to self-regulation impairments that originate from childhood trauma. Research supports the critical role of childhood trauma in substance and putative behavioral addictions. In fact, previous studies have shown that childhood trauma is associated with increased substance use (Rogers et al., 2021; Wu et al., 2010) and a heightened risk for substance use disorder (Broekhof et al., 2023; Capusan et al., 2021). Additionally, childhood trauma is related to problem gambling (Lane et al., 2016; Poole et al., 2017) as well as excessive engagement in other activities, such as the use of Internet platforms (Zhang et al., 2024), sex (Giordano et al., 2024), buying (David et al., 2024) and food intake (Hoover et al., 2022). Specifically, child abuse and neglect, along with other forms of parental failures can lead to adverse outcomes in multiple areas of individual functioning (Cook et al., 2005). Childhood trauma is associated with difficulties in affect representation and regulation (Dvir et al., 2014; Gruhn & Compas, 2020), insecurity in attachment relationships (Midolo et al., 2020; Schimmenti & Bifulco, 2015), maladaptive personality functioning (Granieri et al., 2018), and disturbances in the sense of self (Lanius et al., 2020; Schore, 2002). Additionally, consistent evidence indicates that childhood trauma is linked to an increased severity of dissociation (Dalenberg et al., 2012; Vonderlin et al., 2018).

The American Psychiatric Association (2022) defines dissociation as the discontinuity in the normal integration of various mental functions, including consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior. Dissociative symptoms entails amnesia, a sense of experiential disconnection from the self and/ or the environment (i.e., depersonalization and derealization), and identity confusion and/or alterations (Steinberg, 2023). From a psychodynamic perspective, dissociation is a common mechanism that temporarily screens out irrelevant stimuli, facilitating the integration of mental states in various contexts of daily life and promoting the individual's adjustment. However, traumatic experiences may foster persistent dissociative processes aimed at excluding from awareness unbearable mental states (Bromberg, 1998; Chefetz, 2015). The persistent reliance on dissociation entails multiple discontinuities within and between domains of consciousness (Schimmenti, 2022; Schimmenti & Sar, 2019), manifesting as severe dissociative symptoms. Notably, exposure to childhood trauma evokes overwhelming feelings in children due to their limited cognitive and emotional regulation abilities. Consequently, individuals with a history of childhood trauma may heavily depend on dissociative processes to keep trauma-related mental states out of conscious awareness. Although dissociative processes prevent the emergence of mental states that would otherwise evoke overwhelming feelings, their continued use may impede the integration of these mental states, thereby impairing self-regulation abilities (Schimmenti, 2023b; Schimmenti & Caretti, 2016).

Previous studies suggest that both childhood trauma and dissociation are linked to substance use (Schäfer et al., 2010; Schimmenti et al., 2022; Somer et al., 2010) and putative behavioral addictions (Imperatori et al., 2023). It is noteworthy that dissociation has been found to be associated with gambling disorder (Rogier et al., 2021) and various putative behavioral addictions, including the problematic use of

Internet platforms (Canan et al., 2012; Guglielmucci et al., 2019; Gori et al., 2024) and food addiction (Carbone et al., 2023). From a psychodynamic perspective, individuals exposed to childhood trauma may turn to substance use or engage in certain activities, such as excessively using Internet platforms and services, as a means of temporarily sustaining the dissociation of unbearable mental states from conscious awareness (Schimmenti et al., 2022, Schimmenti & Caretti, 2017).

### 4. From self-medication to self-discontinuity

In recent decades, numerous psychoanalysts have challenged the traditional view of the mind as a unified, monolithic entity; proposing that the self is better understood as a constellation of distinct self-states (Bromberg, 1998; Chefetz, 2015; Mitchell, 1991). Self-states encompass specific configurations of representations of the self and others, emotional responses, behavioral tendencies, and processes of meaningmaking (Costanzo et al., 2024). Dissociation facilitates the integration of self-states by preventing potentially inadequate ones from emerging into conscious awareness within specific relational contexts, thus serving as an adaptive mental mechanism. Therefore, the perception of a continuous and unitary self is an illusion maintained by the fluid transitions between different self-states (Bromberg, 1998). However, repeated traumatic experiences, particularly in early attachment relationships, lead to the persistent activation of dissociative processes that segregate self-states associated with unbearable trauma-related mental states from awareness (Chefetz, 2015; Schimmenti, 2018).

A perspective grounded in the multiplicity of the self may offer valuable insights into the understanding of substance and behavioral addictions. Wurmser (1982, 1987) proposed that individuals who engage in compulsive substance use exhibit distinct and unintegrated configurations of the self. Specifically, substances are utilized to disavow those configurations of the self that are associated with disturbing feelings, such as shame, and to facilitate a shift toward contrasting selfconfigurations. Wurmser (1987) identified the "absoluteness" of inner conflicts and their associated affects as central elements explaining this lack of integration. More recently, Costanzo and colleagues (2023) suggested that substances not only provide relief from overwhelming feelings but also enable individuals exposed to childhood trauma to experience an illusory sense of control over potentially threatening internal and external stimuli - i.e., an omnipotent self-state. Thus, substance use facilitates transitions from vulnerable to omnipotent selfstates, perpetuating the dissociation of trauma-related mental states. It has been suggested that maladaptive engagement in certain activities, such as technology-mediated behaviors, may underlie a rigid separation of self-states (Giardina et al., 2024; Schimmenti & Caretti, 2010). Similar to substance addictions, compulsive engagement in an activity can give individuals an illusory sense of control over unbearable feelings. Furthermore, as a form of self-medication, addictive behavior reinforces the segregation of trauma-related self-states, thereby inhibiting the fluid transition and integration of different self-states. This perspective highlights important differences between temporary compensatory strategies and behavioral addictions. Excessive engagement in certain activities to cope with psychosocial difficulties and satisfy unmet needs does not necessarily undermine the integration of self-states. Although compensatory strategies may temporarily impair certain areas of an individual's functioning, they can be critical in overcoming personal difficulties in creative ways. In contrast to temporary compensatory strategies, behavioral addictions involve the use of such strategies to soothe unbearable trauma-related mental states. Addictive behaviors may indeed create a "psychic pit", consigning trauma-related memories to oblivion (Schimmenti & Caretti, 2010). The proposed psychodynamic model of behavioral addictions is depicted in Fig. 1.

Notably, the presented framework is especially consistent with contemporary conceptualizations of the dynamics of affect regulation in individuals with dissociated internal states (Costanzo et al., 2024).

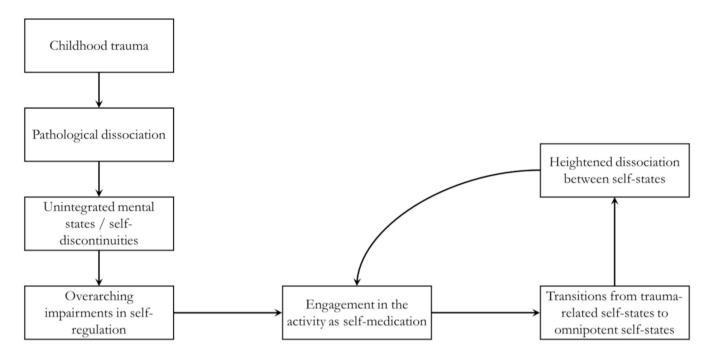


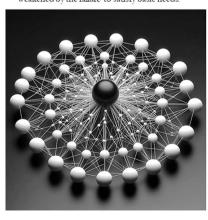
Fig. 1. The psychodynamic model of behavioral addictions.

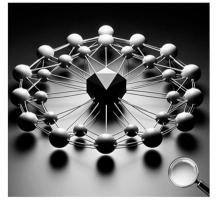
When traumatic or otherwise overwhelming experiences generate segregated mental states that are not cognitively and emotionally processed, these states may negatively influence in many ways the individual's behaviors. Since these states are generally linked to relevant failures in the fulfillment of basic needs (e.g., the needs for attachment and intersubjectivity), they may alter the individual's organization of motivational systems and how they are enacted into the world (Schimmenti, 2023a). Motivational systems, deeply ingrained in human nature, underpin a spectrum of fundamental needs, including

attachment, caregiving, social hierarchy, affiliation, and sexuality (Gilbert, 1995, 2005). From an ethological perspective, these systems represent organized behavioral repertoires designed to achieve multiple, thematically related objectives and needs (Lichtenberg et al., 2011). Dissociated internal states may coercively lead the individual toward specific behaviors that have a compensatory function and represent forms of self-medication (Costanzo et al., 2023). Fig. 2 summarizes the relationship between these dissociated internal states and addictive behaviors.

# DISSOCIATED STATE

- A dissociated internal state (represented here as a black node within a network of white nodes) arises within the self as a consequence of negative experiences (e.g., childhood trauma) that are perceived as emotionally unbearable and cannot be cognitively processed.
- This dissociated state exerts a significant influence on the individual's behavior, especially in threatening situations or when the structure of, and the connections among other mental states are weakened by the failure to satisfy basic needs.





# STRUCTURE OF THE DISSOCIATED STATE

- Motivational systems aimed at satisfying basic needs (depicted here as the polygon at the center of another network) lie at the core of the dissociated internal state. These systems usually encompass motivations for attachment, caregiving, sexuality, cooperation, and social rank.
- Connected to the core of the dissociated internal state are bodily, emotional, cognitive, and relational configurations (spheres in the figure) that are attracted to specific environmental cues because they are expected to satisfy the neglected needs.



# DISSOCIATED STATE AND ADDICTIVE BEHAVIORS

- Once the dissociated internal state becomes attached to behaviors that appear to fulfill the neglected needs, these behaviors might be obsessively, impulsively, and compulsively sought to alleviate the internal tension arising from core motivational systems that fail to find satisfaction in experiences and relationships.
- This compensatory dynamics may generate a vicious cycle of enacting behaviors as a form of self-medication that may resamble addictions



Fig. 2. The relationship between dissociated states and addictive behaviors.

### 5. A clinical vignette

A clinical vignette will help elucidating our psychodynamic framework for understanding behavioral addictions. The patient's name and identifying details have been altered to protect her privacy and ensure anonymity.

Marta was a 24-year-old beautiful young woman. She sat across from one of us, nervously folding the corner of a tissue, her eyes darting around the room but landing on nothing. Marta described her days as if they were slides in a projector, one image after another, all looking the same: hours alone in her darkened apartment, staring at the screen, searching for violent pornographic videos that, for a moment, would let her forget.

Marta spent upwards of six hours a day viewing pornography. It was an endless, repetitive ritual. She would come home from the university, sit on her unmade bed, and begin the hunt—hours scrolling, seeking something new, something stronger. She would stay up late into the night, often until dawn, her hand shaking as she clicked away at her tablet. Pornography had become her sole escape from a gnawing sense of loneliness and inadequacy. It allowed her to disappear, to dissolve into a world where there were no expectations, no judgments, just fleeting, hollow satisfaction. But in the morning, when her body was heavy with fatigue, the guilt would creep in, leaving her disgusted with herself, yet helplessly caught in the cycle.

Marta's history was painful. She was raised in a cold, emotionally barren household. Her parents had divorced when she was young, her father left to another country and her mother, overwhelmed and inattentive, left Marta and her younger brothers to fend for themselves. Marta had no one to ask about her fears, her sadness, or the world outside. She quickly learned that her needs were an inconvenience, something best left unspoken, forgotten. She grew up in silence, her presence unnoticed to adults until age 11. At age 11, Marta was molested and then abused by a group of young adults from her neighborhood. The abuse continued over several months, until she was finally able to avoid that group, but she never spoke of the abuse, not even to her mother. In the years that followed, despite receiving a lot of attention from boys, Marta became withdrawn and anxious around others, especially males, retreating inward and spending her days in isolation. In high school, she struggled with depression, and when she moved to another city for studying at university, she had turned to pornography as a private means of solace. The habit was sporadic at first, but as stress mounted in her academic life, it intensified, transforming from an incidental behavior to an almost unbreakable compulsion. She found herself craving more extreme content to achieve any relief, and her sense of self deteriorated, eroded by a shame that left her feeling powerless and alienated.

# 6. Looking beyond the symptoms

Marta's case can be clearly understood through the framework presented in this article. When exploring the origins of her behaviors, it became immediately evident that Marta's use of pornography served as a strategy to manage painful emotions while simultaneously providing temporary compensation for unmet emotional needs.

The proposed perspective is particularly salient given her history of early neglect and abuse, experiences which impeded her ability to develop secure attachments, a stable self-concept, and effective strategies for regulating emotions. Her repetitive, excessive use of pornography was an attempt to soothe her pervasive sense of isolation, inadequacy, and anxiety about intimacy, filling the void left by years of emotional neglect and trauma. Specifically, Marta's excessive consumption of specific types of Internet pornography served as both a (dysfunctional) way to represent the abuses by identifying with victims in pornographic scenarios – and at the same time try overcome them by linking the abuses with sexual arousal – and as a surrogate for authentic interpersonal connection, providing a brief, though ultimately empty,

form of intimacy. This behavior offered Marta a means of escape from her otherwise barren relational world, compensating for her need for acceptance and connection damaged by early traumas. In other words, the dissociated state associated with traumatic experiences, including abuse and neglect, was excluded from cognitive elaboration through the use of pornography, which facilitated the emergence of an omnipotent self-state where she "controlled" the abuse. An examination of underlying motivations supported this interpretation, as it identified the significant role of internal drivers – such as the need for emotional relief, psychological stability, but also sexuality – in Marta's behaviors. Therefore, Marta's use of pornography was less about an uncontrollable wish for pornography use and more about the relief it provided from the trauma-rooted psychological discomfort she felt.

Although symptom-based models may provide valuable insights into symptoms and impairments associated with the excessive engagement in a specific behavior, such as the problematic online pornography use displayed by Marta, they may inadequately capture the underlying problems in her case. These models risk framing Marta's behavior as an addiction to pornography, and thus overlooking the profound functional role that pornography plays in helping her avoid painful emotions and, more broadly, in temporary fulfilling her unmet needs. In Marta's case, symptoms such as salience and tolerance were indeed present; however, they did not emerge from a drive to achieve stimulation alone. Rather, they were embedded within the complex dynamic relationships between trauma-related mental states, psychological vulnerabilities, and unmet emotional needs. Hence, a treatment focused on curbing her "addiction" likely failed to address the deeper relational and psychological wounds that underpinned her reliance on pornography as a means of emotional regulation for traumatized internal states. Instead, clinicians should primarily assist patients in exploring their unmet needs and painful emotions through the interpersonal validation of their inner states. Accordingly, therapeutic work should provide a corrective emotional experience (Alexander, 1950; Alexander & French, 1946) that allows patients to gradually restore their internal and interpersonal trust. This may play a critical role in enables patients process the consequences of past traumatic experiences on their psychic functioning, including how their own vulnerabilities drive maladaptive behaviors, ultimately fostering a more cohesive sense of self. In these cases, recognizing maladaptive behavior not only as a compensatory strategy but also as a form of self-medication is crucial in supporting individuals on their journey toward self-compassion, personal agency and, perhaps, the capacity for genuine intimacy.

# 7. Conclusions

The conceptualization of excessive or otherwise maladaptive engagement in certain activities based on substance addiction criteria entails several limitations, which may lead to the overpathologization of common behaviors or, alternatively, the misclassification of correlates of other mental disorders. Thus, symptom-based models may serve for screening but in our view tend to have poor clinical utility for case formulation and intervention design. Process-based models, such as the psychodynamic model presented in this article, may overcome these limitations.

From a psychodynamic perspective, individuals exposed to child-hood trauma might excessively engage in certain activities to sustain the segregation of trauma-related mental states. In such circumstances, engagement in these activities enables individuals to achieve a sense of control over unbearable feelings while simultaneously reinforcing discontinuities in self-experience. Accordingly, these behaviors do not constitute a temporary coping strategy but rather serve as a means of self-medication for vulnerabilities embedded in childhood trauma.

As illustrated through the case of Marta, this theoretical framework may have significant clinical implications. Indeed, understanding the complex relationships between past traumatic experiences, psychological vulnerabilities, and behavioral addictions is critical for designing interventions aimed at helping patients develop not only better selfregulation abilities but also a more cohesive sense of self.

### CRediT authorship contribution statement

**Gianluca Santoro:** Writing – review & editing, Writing – original draft, Visualization, Conceptualization. **Alessandro Musetti:** Writing – review & editing, Conceptualization. **Antonino Costanzo:** Writing – review & editing, Conceptualization. **Adriano Schimmenti:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization, Visualization.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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No data was used for the research described in the article.

### References

- Alexander, F. (1950). Analysis of the therapeutic factors in psychoanalytic treatment. The Psychoanalytic Quarterly, 19(4), 482–500. https://doi.org/10.1080/ 21674086.1950.11925819
- Alexander, F., & French, T. M. (1946). Psychoanalysis and psychotherapy: Principles and application. Ronald Press.
- American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.). American Psychiatric Association. doi: 10.1176/appi. books.9780890425787.
- Andreassen, C. S., Griffiths, M. D., Pallesen, S., Bilder, R. M., Torsheim, T., & Aboujaoude, E. (2015). The Bergen Shopping Addiction Scale: Reliability and validity of a brief screening test. Frontiers in Psychology, 6. https://doi.org/10.3389/ fpsyg.2015.01374
- Andreassen, C. S., Pallesen, S., Griffiths, M. D., Torsheim, T., & Sinha, R. (2018). The development and validation of the Bergen–Yale Sex Addiction Scale with a large national sample. Frontiers in Psychology, 9, 144. https://doi.org/10.3389/ fpsys.2018.00144
- Billieux, J., Schimmenti, A., Khazaal, Y., Maurage, P., & Heeren, A. (2015). Are we overpathologizing everyday life? A tenable blueprint for behavioral addiction research. *Journal of Behavioral Addictions*, 4(3), 119–123. https://doi.org/10.1556/ 2006.4.2015.009
- Blaszczynski, A., & Nower, L. (2002). A pathways model of problem and pathological gambling. Addiction, 97(5), 487-499. https://doi.org/10.1046/j.1360-0443.2002.00015.x
- Böthe, B., Lonza, A., Štulhofer, A., & Demetrovics, Z. (2020). Symptoms of problematic pornography use in a sample of treatment considering and treatment nonconsidering men: A network approach. *The Journal of Sexual Medicine*, 17(10), 2016–2028. https://doi.org/10.1016/j.jsxm.2020.05.030
- Brand, M., Wegmann, E., Stark, R., Müller, A., Wölfling, K., Robbins, T. W., & Potenza, M. N. (2019). The Interaction of Person-Affect-Cognition-Execution (I-PACE) model for addictive behaviors: Update, generalization to addictive behaviors beyond internet-use disorders, and specification of the process character of addictive behaviors. Neuroscience & Biobehavioral Reviews, 104, 1–10. https://doi.org/10.1016/j.neubiorev.2019.06.032
- Broekhof, R., Nordahl, H. M., Tanum, L., & Selvik, S. G. (2023). Adverse childhood experiences and their association with substance use disorders in adulthood: A general population study (Young-HUNT). Addictive Behaviors Reports, 17, Article 100488. https://doi.org/10.1016/j.abrep.2023.100488
- Bromberg, P. M. (1998). Standing in the spaces: Essays on clinical process, trauma, and dissociation. Analytic Press.
- Canan, F., Ataoglu, A., Ozcetin, A., & Icmeli, C. (2012). The association between Internet addiction and dissociation among Turkish college students. *Comprehensive Psychiatry*, 53(5), 422–426. https://doi.org/10.1016/j.comppsych.2011.08.006
- Capusan, A. J., Gustafsson, P. A., Kuja-Halkola, R., Igelström, K., Mayo, L. M., & Heilig, M. (2021). Re-examining the link between childhood maltreatment and substance use disorder: A prospective, genetically informative study. *Molecular Psychiatry*, 26(7), 3201–3209. https://doi.org/10.1038/s41380-021-01071-8
- Carbone, G. A., De Rossi, E., Prevete, E., Tarsitani, L., Corazza, O., Massullo, C., Farina, B., Pasquini, M., Taddei, I., Biondi, M., Imperatori, C., & Bersani, F. S. (2023).

- Dissociative experiences of compartmentalization are associated with food addiction symptoms: Results from a cross-sectional report. Eating and Weight Disorders Studies on Anorexia, Bulimia and Obesity, 28(1), 28. https://doi.org/10.1007/s40519-023-01555-2
- Caretti, V., Gori, A., Craparo, G., Giannini, M., Iraci-Sareri, G., & Schimmenti, A. (2018). A New measure for assessing substance-related and addictive disorders: The Addictive Behavior Questionnaire (ABQ). *Journal of Clinical Medicine*, 7(8), 194. https://doi.org/10.3390/jcm7080194
- Castro-Calvo, J., Flayelle, M., Perales, J. C., Brand, M., Potenza, M. N., & Billieux, J. (2022). Compulsive sexual behavior disorder should not be classified by solely relying on component/symptomatic features •: Commentary to the debate: "Behavioral addictions in the ICD-11.". *Journal of Behavioral Addictions*, 11(2), 210–215. https://doi.org/10.1556/2006.2022.00029
- Castro-Calvo, J., King, D. L., Stein, D. J., Brand, M., Carmi, L., Chamberlain, S. R., Demetrovics, Z., Fineberg, N. A., Rumpf, H., Yücel, M., Achab, S., Ambekar, A., Bahar, N., Blaszczynski, A., Bowden-Jones, H., Carbonell, X., Chan, E. M. L., Ko, C., de Timary, P., & Billieux, J. (2021). Expert appraisal of criteria for assessing gaming disorder: An international Delphi study. Addiction, 116(9), 2463–2475. https://doi.org/10.1111/add.15411
- Charlton, J. P., & Danforth, I. D. W. (2007). Distinguishing addiction and high engagement in the context of online game playing. *Computers in Human Behavior*, 23 (3), 1531–1548. https://doi.org/10.1016/j.chb.2005.07.002
- Chefetz, R. A. (2015). Intensive psychotherapy for persistent dissociative processes: The fear of feeling real. W W Norton & Co.
- Christ, C., de Waal, M. M., Dekker, J. J. M., van Kuijk, I., van Schaik, D. J. F., Kikkert, M. J., Goudriaan, A. E., Beekman, A. T. F., & Messman-Moore, T. L. (2019). Linking childhood emotional abuse and depressive symptoms: The role of emotion dysregulation and interpersonal problems. *PLoS ONE*, 14(2), Article e0211882. https://doi.org/10.1371/journal.pone.0211882
- Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., DeRosa, R., Hubbard, R., Kagan, R., Liautaud, J., Mallah, K., Olafson, E., & van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*, 35(5), 390–398. https://doi.org/10.3928/00485713-20050501-05
- Costa, S., Barberis, N., Griffiths, M. D., Benedetto, L., & Ingrassia, M. (2021). The Love Addiction Inventory: Preliminary findings of the development process and psychometric characteristics. *International Journal of Mental Health and Addiction*, 19 (3), 651–668. https://doi.org/10.1007/s11469-019-00097-y
- Costanzo, A., Musetti, A., Rossi, R., & Schimmenti, A. (2024). More than one effect in every affect. Physics of Life Reviews, 51, 273–280. https://doi.org/10.1016/j. phrev.2024.10.008
- Costanzo, A., Santoro, G., & Schimmenti, A. (2023). Self-medication, traumatic reenactments, and dissociation: A psychoanalytic perspective on the relationship between childhood trauma and substance abuse. Psychoanalytic Psychotherapy, 37(4), 443–466. https://doi.org/10.1080/02668734.2023.2272761
- Dalenberg, C. J., Brand, B. L., Gleaves, D. H., Dorahy, M. J., Loewenstein, R. J., Cardeña, E., Frewen, P. A., Carlson, E. B., & Spiegel, D. (2012). Evaluation of the evidence for the trauma and fantasy models of dissociation. *Psychological Bulletin*, 138(3), 550–588. https://doi.org/10.1037/a0027447
- David, J., Kim, H. S., Hodgins, D. C., Dawson, S. J., Tabri, N., Shead, N. W., & Keough, M. T. (2024). Emotional difficulties mediate the impact of adverse childhood experiences on compulsive buying-shopping problems. *Journal of Behavioral Addictions*, 13(4), 1064–1073. https://doi.org/10.1556/2024.00056
- Deleuze, J., Long, J., Liu, T.-Q., Maurage, P., & Billieux, J. (2018). Passion or addiction? Correlates of healthy versus problematic use of videogames in a sample of French-speaking regular players. Addictive Behaviors, 82, 114–121. https://doi.org/10.1016/j.addbeh.2018.02.031
- Dong, G., & Potenza, M. N. (2014). A cognitive-behavioral model of Internet gaming disorder: Theoretical underpinnings and clinical implications. *Journal of Psychiatric Research*, 58, 7–11. https://doi.org/10.1016/j.jpsychires.2014.07.005
- Dvir, Y., Ford, J. D., Hill, M., & Frazier, J. A. (2014). Childhood maltreatment, emotional dysregulation, and psychiatric comorbidities. *Harvard Review of Psychiatry*, 22(3), 149–161. https://doi.org/10.1097/HRP.0000000000000014
- Estévez, A., Jáuregui, P., Sánchez-Marcos, I., López-González, H., & Griffiths, M. D. (2017). Attachment and emotion regulation in substance addictions and behavioral addictions. *Journal of Behavioral Addictions*, 6(4), 534–544. https://doi.org/ 10.1556/2006.6.2017.086
- Flayelle, M., Maurage, P., Karila, L., Vögele, C., & Billieux, J. (2019). Overcoming the unitary exploration of binge-watching: A cluster analytical approach. *Journal of Behavioral Addictions*, 8(3), 586–602. https://doi.org/10.1556/2006.8.2019.53
- Flayelle, M., Schimmenti, A., Starcevic, V., & Billieux, J. (2022). The pitfalls of recycling substance-use disorder criteria to diagnose behavioral addictions. In N. Heather, M. Field, A. C. Moss, & S. Satel, Evaluating the Brain Disease Model of Addiction (1st ed., pp. 339–349). Routledge. doi: 10.4324/9781003032762-34.
- Fournier, L., Schimmenti, A., Musetti, A., Boursier, V., Flayelle, M., Cataldo, I., Starcevic, V., & Billieux, J. (2023). Deconstructing the components model of addiction: An illustration through "addictive" use of social media. Addictive Behaviors, 143, Article 107694. https://doi.org/10.1016/j.addbeh.2023.107694
- Garke, M.Å., Isacsson, N. H., Sörman, K., Bjureberg, J., Hellner, C., Gratz, K. L., Berghoff, C. R., Sinha, R., Tull, M. T., & Jayaram-Lindström, N. (2021). Emotion dysregulation across levels of substance use. *Psychiatry Research*, 296, Article 113662. https://doi.org/10.1016/j.psychres.2020.113662
- Giardina, A., Schimmenti, A., Starcevic, V., King, D. L., Di Blasi, M., & Billieux, J. (2024). Problematic gaming, social withdrawal, and Escapism: The Compensatory-Dissociative Online Gaming (C-DOG) model. Computers in Human Behavior, 155, Article 108187. https://doi.org/10.1016/j.chb.2024.108187

- Gilbert, P. (1995). Biopsychosocial approaches and evolutionary theory as aids to integration in clinical psychology and psychotherapy. Clinical Psychology & Psychotherapy, 2(3), 135–156. https://doi.org/10.1002/cpp.5640020302
- Gilbert, P. (2005). Social Mentalities: A Biopsychosocial and Evolutionary Approach to Social Relationships. In M. W. Baldwin (Ed.), *Interpersonal cognition* (pp. 299–333). The Guilford Press.
- Giordano, A. L., Hedden, L. E., Kim, S. W., Lundeen, L. A., & Lu, Z. (2024). Childhood trauma and sex addiction among adult men. *Journal of Addictions & Offender Counseling*, 45(2), 221–233. https://doi.org/10.1002/jaoc.12134
- Goodman, A. (1990). Addiction: Definition and implications. *British Journal of Addiction*, 85(11), 1403–1408. https://doi.org/10.1111/j.1360-0443.1990.tb01620.x
- Gordon, E., Ariel-Donges, A., Bauman, V., & Merlo, L. (2018). What is the evidence for "Food Addiction?". A systematic review. Nutrients, 10(4), 477. https://doi.org/ 10.3390/nu10040477
- Gori, A., Topino, E., Fioravanti, G., & Casale, S. (2024). Exploring the psychodynamics of compulsive shopping: Single and moderated mediation analyses. *International Journal of Mental Health and Addiction*, 22, 2149–2165. https://doi.org/10.1007/ s11469.072.0077.
- Granieri, A., Guglielmucci, F., Costanzo, A., Caretti, V., & Schimmenti, A. (2018). Trauma-related dissociation is linked with maladaptive personality functioning. Frontiers in Psychiatry, 9, 206. https://doi.org/10.3389/fpsyt.2018.00206
- Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use*, 10(4), 191–197. https://doi.org/10.1080/ 14659890500114359
- Gruhn, M. A., & Compas, B. E. (2020). Effects of maltreatment on coping and emotion regulation in childhood and adolescence: A meta-analytic review. *Child Abuse & Neglect*, 103, Article 104446. https://doi.org/10.1016/j.chiabu.2020.104446
- Guglielmucci, F., Monti, M., Franzoi, I. G., Santoro, G., Granieri, A., Billieux, J., & Schimmenti, A. (2019). Dissociation in problematic gaming: A systematic review. Current Addiction Reports, 6, 1–14. https://doi.org/10.1007/s40429-019-0237-z
- Hoover, L. V., Yu, H. P., Duval, E. R., & Gearhardt, A. N. (2022). Childhood trauma and food addiction: The role of emotion regulation difficulties and gender differences. *Appetite*, 177, Article 106137. https://doi.org/10.1016/j.appet.2022.106137
- Imperatori, C., Barchielli, B., Corazza, O., Carbone, G. A., Prevete, E., Montaldo, S., De Rossi, E., Massullo, C., Tarsitani, L., Ferracuti, S., Pasquini, M., Biondi, M., Farina, B., & Bersani, F. S. (2023). The relationship between childhood trauma, pathological dissociation, and behavioral addictions in young adults: Findings from a cross-sectional study. *Journal of Trauma & Dissociation*, 24(3), 348–361. https://doi.org/10.1080/15299732.2023.2181479
- Kardefelt-Winther, D. (2014). A conceptual and methodological critique of internet addiction research: Towards a model of compensatory internet use. Computers in Human Behavior, 31, 351–354. https://doi.org/10.1016/j.chb.2013.10.059
- Kardefelt-Winther, D., Heeren, A., Schimmenti, A., van Rooij, A., Maurage, P., Carras, M., Edman, J., Blaszczynski, A., Khazaal, Y., & Billieux, J. (2017). How can we conceptualize behavioural addiction without pathologizing common behaviours?: How to conceptualize behavioral addiction. Addiction, 112(10), 1709–1715. https://doi.org/10.1111/add.13763
- Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. *Harvard Review of Psychiatry*, 4(5), 231–244. https://doi.org/10.3109/10673229709030550
- Khantzian, E. J. (2003). Understanding addictive vulnerability: An evolving psychodynamic perspective. *Neuropsychoanalysis*, 5(1), 5–21. https://doi.org/ 10.1080/15294145.2003.10773403
- Khantzian, E. J. (2012). Reflections on treating addictive disorders: A psychodynamic perspective. The American Journal on Addictions, 21(3), 274–279. https://doi.org/ 10.1111/j.1521-0391.2012.00234.x
- Lane, W., Sacco, P., Downton, K., Ludeman, E., Levy, L., & Tracy, J. K. (2016). Child maltreatment and problem gambling: A systematic review. *Child Abuse & Neglect*, 58, 24–38. https://doi.org/10.1016/j.chiabu.2016.06.003
- Lanius, R. A., Terpou, B. A., & McKinnon, M. C. (2020). The sense of self in the aftermath of trauma: Lessons from the default mode network in posttraumatic stress disorder. *European Journal of Psychotraumatology*, 11(1), Article 1807703. https://doi.org/ 10.1080/20008198.2020.1807703
- Lichtenberg, J. D., Lachmann, F. M., & Fosshage, J. L. (2011). Psychoanalysis and motivational systems: A new look. Routledge/Taylor & Francis Group. https://doi.org/ 10.4324/9780203844748
- Lichtenstein, M. B., Christiansen, E., Bilenberg, N., & Støving, R. K. (2014). Validation of the exercise addiction inventory in a Danish sport context. *Scandinavian Journal of Medicine & Science in Sports*, 24(2), 447–453. https://doi.org/10.1111/j.1600-0838.2012.01515.x
- Lichtenstein, M. B., & Jensen, T. T. (2016). Exercise addiction in CrossFit: Prevalence and psychometric properties of the Exercise Addiction Inventory. *Addictive Behaviors Reports*, *3*, 33–37. https://doi.org/10.1016/j.abrep.2016.02.002
- Lin, Y.-H., Chiang, C.-L., Lin, P.-H., Chang, L.-R., Ko, C.-H., Lee, Y.-H., & Lin, S.-H. (2016). Proposed diagnostic criteria for Smartphone Addiction. *PLoS ONE*, 11(11), Article e0163010. https://doi.org/10.1371/journal.pone.0163010
- Mansueto, G., Sassaroli, S., Ruggiero, G. M., Caselli, G., Nocita, R., Spada, M. M., & Palmieri, S. (2024). The mediating role of emotion dysregulation in the association between perfectionism and eating psychopathology symptoms. *Clinical Psychology & Psychotherapy*, 31(4), e3020.
- Marks, I. (1990). Behavioural (non-chemical) addictions. British Journal of Addiction, 85 (11), 1389–1394. https://doi.org/10.1111/j.1360-0443.1990.tb01618.x
- Midolo, L. R., Santoro, G., Ferrante, E., Pellegriti, P., Russo, S., Costanzo, A., & Schimmenti, A. (2020). Childhood trauma, attachment and psychopathology: A correlation network approach. *Mediterranean. Journal of Clinical Psychology, 8*(2). https://doi.org/10.6092/2282-1619/mjcp-2418

- Mitchell, S. A. (1991). Contemporary perspectives on self: Toward an integration. Psychoanalytic Dialogues, 1(2), 121–147. https://doi.org/10.1080/ 10481880100538880
- Musetti, A., Mancini, T., Corsano, P., Santoro, G., Cavallini, M. C., & Schimmenti, A. (2019). Maladaptive personality functioning and psychopathological symptoms in problematic video game players: A person-centered approach. Frontiers in Psychology, 10, 2559. https://doi.org/10.3389/fpsyg.2019.02559
- Perales, J. C., King, D. L., Navas, J. F., Schimmenti, A., Sescousse, G., Starcevic, V., van Holst, R. J., & Billieux, J. (2020). Learning to lose control: A process-based account of behavioral addiction. Neuroscience and Biobehavioral Reviews, 108, 771–780. https://doi.org/10.1016/j.neubiorev.2019.12.025
- Poole, J. C., Kim, H. S., Dobson, K. S., & Hodgins, D. C. (2017). Adverse childhood experiences and disordered gambling: Assessing the mediating role of emotion dysregulation. *Journal of Gambling Studies*, 33, 1187–1200. https://doi.org/10.1007/ \$10899.017.9680.8
- Rogier, G., Beomonte Zobel, S., Marini, A., Camponeschi, J., & Velotti, P. (2021). Gambling disorder and dissociative features: A systematic review and meta-analysis. *Psychology of Addictive Behaviors*, 35(3), 247–262. https://doi.org/10.1037/ adb000693
- Rogers, C. J., Forster, M., Grigsby, T. J., Albers, L., Morales, C., & Unger, J. B. (2021). The impact of childhood trauma on substance use trajectories from adolescence to adulthood: Findings from a longitudinal Hispanic cohort study. *Child Abuse & Neglect*, 120, Article 105200. https://doi.org/10.1016/j.chiabu.2021.105200
- Schäfer, I., Langeland, W., Hissbach, J., Luedecke, C., Ohlmeier, M. D., Chodzinski, C., Kemper, U., Keiper, P., Wedekind, D., Havemann-Reinecke, U., Teunissen, S., Weirich, S., Driessen, M., & TRAUMAB-Study Group. (2010). Childhood trauma and dissociation in patients with alcohol dependence, drug dependence, or both—a multi-center study. *Drug and Alcohol Dependence*, 109(1–3), 84–89. doi: 10.1016/j.drugalcdep.2009.12.012.
- Schimmenti, A. (2018). The trauma factor: Examining the relationships among different types of trauma, dissociation, and psychopathology. *Journal of Trauma & Dissociation*, 19(5), 552–571. https://doi.org/10.1080/15299732.2017.1402400
- Schimmenti, A. (2022). Can dissociative symptoms exist without an underlying dissociation of the personality? Yes! European Journal of Trauma & Dissociation, 6(2), Article 100243. https://doi.org/10.1016/ji.ejtd.2021.100243
- Schimmenti, A. (2023a). Beyond addiction: Rethinking problematic Internet use from a motivational framework. Clinical Neuropsychiatry, 20(6), 471–478. https://doi.org/ 10.36131/cnfioritieditore20230601
- Schimmenti, A. (2023b). The relationship between attachment and dissociation: Theory, research, and clinical implications. In Dissociation and the dissociative disorders: Past, present, future (2nd ed., pp. 161–176). Routledge.
- Schimmenti, A., & Bifulco, A. (2015). Linking lack of care in childhood to anxiety disorders in emerging adulthood: The role of attachment styles. *Child and Adolescent Mental Health*, 20(1), 41–48. https://doi.org/10.1111/camh.12051
- Schimmenti, A., Billieux, J., Santoro, G., Casale, S., & Starcevic, V. (2022). A trauma model of substance use: Elaboration and preliminary validation. *Addictive Behaviors*, 134, Article 107431. https://doi.org/10.1016/j.addbeh.2022.107431
- Schimmenti, A., & Caretti, V. (2010). Psychic retreats or psychic pits?: Unbearable states of mind and technological addiction. Psychoanalytic Psychology, 27(2), 115–132. https://doi.org/10.1037/a0019414
- Schimmenti, A., & Caretti, V. (2016). Linking the overwhelming with the unbearable:
  Developmental trauma, dissociation, and the disconnected self. *Psychoanalytic Psychology*, *33*(1), 106–128. https://doi.org/10.1037/a0038019
  Schimmenti, A., & Caretti, V. (2017). Video-terminal dissociative trance: Toward a
- Schimmenti, A., & Caretti, V. (2017). Video-terminal dissociative trance: Toward a psychodynamic understanding of problematic Internet use. *Clinical Neuropsychiatry*, 14(1), 64–72.
- Schimmenti, A., & Şar, V. (2019). A correlation network analysis of dissociative experiences. *Journal of Trauma & Dissociation*, 20(4), 402–419. https://doi.org/ 10.1080/15299732.2019.1572045
- Schore, A. N. (2002). Advances in neuropsychoanalysis, attachment theory, and trauma research: Implications for Self psychology. Psychoanalytic Inquiry, 22(3), 433–484. https://doi.org/10.1080/07351692209348996
- Somer, E., Altus, L., & Ginzburg, K. (2010). Dissociative psychopathology among opioid use disorder patients: Exploring the "chemical dissociation" hypothesis. *Comprehensive Psychiatry*, 51(4), 419–425. https://doi.org/10.1016/j. comppsych.2009.09.007
- Starcevic, V. (2016). Tolerance and withdrawal symptoms may not be helpful to enhance understanding of behavioural addictions. Addiction, 111(7), 1307–1308. https://doi. org/10.1111/add.13381
- Steinberg, M. (2023). The SCID-D interview: Dissociation assessment in therapy, forensics, and research. American Psychiatric Association Publishing.
- Targhetta, R., Nalpas, B., & Perney, P. (2013). Argentine tango: Another behavioral addiction? *Journal of Behavioral Addictions*, 2(3), 179–186. https://doi.org/10.1556/ JBA.2.2013.007
- Vonderlin, R., Kleindienst, N., Alpers, G. W., Bohus, M., Lyssenko, L., & Schmahl, C. (2018). Dissociation in victims of childhood abuse or neglect: A meta-analytic review. *Psychological Medicine*, 48(15), 2467–2476. https://doi.org/10.1017/S0033291718000740
- World Health Organization. (2019). International statistical classification of diseases and related health problems (eleventh edition). World Health Organization. https://icd.
- Wu, N. S., Schairer, L. C., Dellor, E., & Grella, C. (2010). Childhood trauma and health outcomes in adults with comorbid substance abuse and mental health disorders. *Addictive Behaviors*, 35(1), 68–71. https://doi.org/10.1016/j.addbeh.2009.09.003

- Wurmser, L. (1982). The question of specific psychopathology in compulsive drug use.

  Annals of the New York Academy of Sciences, 398(1), 33–43. https://doi.org/10.1111/i1744-6632.1982.th39471.x
- j.1749-6632.1982.tb39471.x

  Wurmser, L. (1987). Flight from conscience: Experiences with the psychoanalytic treatment of compulsive drug abusers. *Journal of Substance Abuse Treatment*, 4(3–4), 169–179. https://doi.org/10.1016/S0740-5472(87)80011-9
- Yap, K., Mogan, C., Moriarty, A., Dowling, N., Blair-West, S., Gelgec, C., & Moulding, R. (2018). Emotion regulation difficulties in obsessive-compulsive disorder. *Journal of Clinical Psychology*, 74(4), 695–709. https://doi.org/10.1002/jclp.22553
- Clinical Psychology, 74(4), 695–709. https://doi.org/10.1002/jclp.22553

  Zhang, Q., Zhang, Q., Ran, G., & Liu, Y. (2024). The association between child abuse and internet addiction: A three-level meta-analysis. Trauma, Violence, & Abuse, 25(3), 2234–2248. https://doi.org/10.1177/15248380231209436