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# Compulsive Sexual Behavior as a Maladaptive Coping Mechanism in **Bipolar Affective Disorder: A Case Report**

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Received : July 15, 2025	APCTDACT. Commutaine Second Deterrion (CSD) in
Received : July 15, 2025	ABSTRACT: Compulsive Sexual Behavior (CSB) is
Accepted : August 27, 2025	increasingly acknowledged as a comorbid feature in individuals with Bipolar Affective Disorder (BAD), particularly during
Published : August 31, 2025	manic episodes. It often presents as a maladaptive coping
	mechanism for affective instability and unresolved trauma. This
	case report describes a 31-year-old male diagnosed with BAD
	and exhibiting chronic compulsive pornography use, social
	withdrawal, and dependent personality traits. The patient's
Citation Shafe MCN Abadish U.D. Sandar	compulsive behavior persisted beyond mood episodes and was characterized by a persistent inability to control sexual urges,
Citation: Shafly, M.S.N., Ahadiah, H.R., Syadza, L., Algristian, H., & Setyorini, D., (2025).	leading to distress and impaired daily functioning.
Compulsive Sexual Behavior as a Maladaptive	Developmental history revealed early exposure to family
Coping Mechanism in Bipolar Affective	conflict, emotional neglect, and an overdependent relationship
Disorder: A Case Report. Sinergi International	with his mother, which contributed to insecure attachment and
Journal of Psychology, 3(3), 137-147.	limited autonomy. The patient used pornography as an
	emotional escape, particularly during episodes of anxiety,
	loneliness, or boredom. Psychiatric evaluation confirmed
https://doi.org/10.61194/psychology.v3i3.785	comorbidity with Compulsive Sexual Behavior Disorder
	(CSBD) based on ICD-11 criteria. Therapeutic intervention
	included Cognitive Behavioral Therapy (CBT) tailored to
	address compulsive behavior, emotion regulation deficits, and
	trauma-related triggers. The patient responded favorably to structured psychoeducation and behavioral strategies, although
	long-term outcomes remain uncertain due to limited follow-up.
	This case underscores the complex interplay between CSB and
	BAD, with implications for diagnosis, treatment planning, and
	long-term management. It highlights the importance of early
	recognition of CSB symptoms, the role of trauma-informed
	care, and the need for integrative therapeutic approaches in
	patients with dual diagnoses. Clinicians are encouraged to assess
	compulsive behaviors beyond the scope of mood symptoms
	and address them as independent therapeutic targets to enhance
	functional recovery.
	Keywords: Compulsive Sexual Behavior; Bipolar Affective
	Disorder.
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### INTRODUCTION

Compulsive sexual behavior (CSB), a pattern characterized by persistent failure to control intense sexual impulses and repetitive sexual activities, has gained increasing clinical attention in recent years. In the 11th revision of the International Classification of Diseases (ICD-11), CSB is now

recognized as a distinct clinical entity under impulse control disorders (Organization, 2019). This classification underscores the clinical and functional impairment associated with CSB, especially when it co-occurs with other psychiatric disorders such as Bipolar Affective Disorder (BAD).

Bipolar Affective Disorder is a chronic mood disorder marked by episodes of mania, hypomania, and depression. Hypersexuality, or heightened sexual drive and behaviors, is a common yet underreported symptom during manic states, occurring in up to 57% of cases (Marengo et al., 2021). However, the manifestation of compulsive sexual behaviors outside acute manic episodes suggests a more complex interplay between mood instability, trauma, impulsivity, and emotion dysregulation (Giugliano, 2022).

The convergence of CSB and BAD is clinically significant. Several studies indicate that patients with BAD who exhibit CSB often experience greater functional impairment, poorer treatment adherence, and higher rates of comorbidities, including substance use and personality disorders (Leem et al., 2020). The bidirectional relationship between mood instability and sexual compulsivity complicates the clinical course and treatment response, demanding a nuanced understanding of underlying mechanisms.

Neurobiologically, CSB and BAD share common pathways involving the prefrontal cortex, limbic system, and dopaminergic reward circuits. Hyperdopaminergic activity, especially in the mesolimbic pathway, contributes to the heightened sexual drive seen in mania, while frontal lobe dysfunction may impair impulse control and judgment (Carnes, 2020; Schmidt et al., 2022). These neural abnormalities are further compounded by early-life stress and insecure attachment patterns, which increase vulnerability to both affective and behavioral dysregulation (Reid et al., 2019).

From a psychological perspective, many individuals with CSB report histories of childhood emotional neglect, sexual trauma, or parental conflict. These adverse experiences can disrupt the development of healthy emotion regulation strategies and self-soothing mechanisms (Giugliano, 2022). In such individuals, compulsive sexual behavior may emerge as a maladaptive coping mechanism aimed at alleviating anxiety, shame, or interpersonal distress (Lew-Starowicz et al., 2020). For individuals with BAD, whose emotional states are already dysregulated, this coping strategy may become particularly entrenched.

The role of pornography in compulsive sexual behavior also merits attention. With widespread accessibility via digital platforms, pornography use has become one of the most common manifestations of CSB, especially in males Kraus et al. (2018). In clinical contexts, excessive pornography consumption may function not only as a form of behavioral addiction but also as a form of emotional escape, further exacerbating mood symptoms, social withdrawal, and interpersonal dysfunction.

Effective treatment for CSB in bipolar patients remains a challenge. While pharmacotherapy, particularly mood stabilizers, may reduce impulsivity and sexual preoccupation, psychotherapy plays a crucial role in addressing the psychological underpinnings of the behavior. Cognitive Behavioral Therapy (CBT) has emerged as the most evidence-based approach, focusing on modifying maladaptive thought patterns, developing coping skills, and enhancing emotional regulation (Hallberg et al., 2017). Furthermore, trauma-informed care and attachment-based

therapies have shown promise in patients with dual diagnoses, especially when CSB is rooted in unresolved trauma or insecure relational schemas (Weiss, 2022).

This case report explores the clinical complexity of CSB as a maladaptive coping strategy in a patient with Bipolar Affective Disorder. By examining the patient's psychological history, behavior patterns, and response to therapy, this report seeks to highlight the importance of early recognition, integrative diagnosis, and individualized intervention strategies in managing such comorbid presentations

### METHOD

This clinical case report involves a 31-year-old male patient diagnosed with Bipolar Affective Disorder. Clinical data were obtained through direct observation, psychiatric interviews, physical and mental status examinations, and review of medical records. Additional information was gathered from family interviews. Ethical approval was secured, and informed consent was obtained from the patient's legal guardian.

### **RESULTS AND DISCUSSION**

#### **Case Presentation**

A 31-year-old single male with a six-year history of Bipolar Affective Disorder (BAD), currently in partial remission, was referred for psychiatric evaluation due to chronic compulsive sexual behavior and social withdrawal. The patient reported daily consumption of online pornography, averaging six to ten sessions per day, often lasting several hours. He described a subjective sense of losing control over these behaviors, followed by intense guilt and emotional exhaustion. Despite multiple attempts to abstain, he relapsed frequently, particularly during periods of stress or mood instability.

Developmentally, the patient was the youngest of three siblings and raised in a conflictual household. His early childhood was marked by frequent verbal altercations between his parents, parental emotional unavailability, and inconsistent discipline. Although no history of sexual abuse was disclosed, the patient endorsed persistent feelings of abandonment and neglect. He reported a close, overly dependent relationship with his mother, who served as both his emotional and practical caregiver well into adulthood.

The patient exhibited signs of dependent personality traits, characterized by low self-efficacy, an excessive need for reassurance, and an inability to make independent decisions. He did not complete his secondary education due to concentration difficulties and anxiety-related absenteeism. Subsequent occupational functioning was impaired; although he was offered multiple job opportunities through family connections, he declined them all due to overwhelming social anxiety and a fear of failure.

His social interactions were markedly restricted. He never engaged in a romantic or sexual relationship and avoided in-person interactions. His daily activities consisted of solitary behaviors such as internet browsing, pornography viewing, and video gaming, which he used to avoid uncomfortable emotional states. He denied substance use, hallucinations, or delusions.

During psychiatric interviews, he appeared cooperative but exhibited blunted affect and poor eye contact. Mental status examination revealed low mood, psychomotor retardation, passive suicidal ideation without intent, and intact cognition. Notably, during past manic episodes, his pornography use escalated significantly, along with decreased need for sleep, pressured speech, irritability, and impulsive financial behaviors.

Collateral information from family members confirmed that his compulsive behaviors intensified during mood elevation and subsided only modestly during depressive phases. The patient had previously received pharmacotherapy with mood stabilizers (valproate and lithium), with partial adherence. No prior structured psychotherapy had been implemented.

The clinical impression supported a dual diagnosis of Bipolar Affective Disorder, currently in partial remission, and Compulsive Sexual Behavior Disorder (CSBD) with comorbid dependent personality features. The treatment plan included the introduction of Cognitive Behavioral Therapy (CBT) tailored for CSB, psychoeducation about mood-sexuality links, relapse prevention strategies, and gradual exposure to structured social activities. The patient and family were also provided with resources on emotion regulation and trauma-informed care.

# Hypersexuality and Manic Episodes in BAD

Manic episodes in Bipolar Affective Disorder (BAD) are frequently characterized by an increase in energy, decreased need for sleep, grandiosity, and engagement in risky behaviors, including impulsive sexual activity (Marengo et al., 2021). Hypersexuality, often seen during manic states, includes excessive sexual thoughts, urges, or behaviors that may result in social, occupational, or physical harm. In this case, the patient's compulsive sexual behavior (CSB) appeared to intensify during manic episodes, with reduced self-monitoring, diminished insight, and elevated libido. This phenomenon has been widely reported in the literature, wherein hypersexuality in bipolar patients serves as both a diagnostic marker and a complicating feature, associated with interpersonal dysfunction and impulsivity (Costa & Pacheco, 2019).

Moreover, it is essential to differentiate between hypersexuality as a transient symptom of mania and compulsive sexual behavior as a chronic, impairing pattern (Gómez-Beneyto et al., 2023). The persistence of such behavior outside of mood episodes—particularly with associated guilt and distress—may indicate the presence of comorbid Compulsive Sexual Behavior Disorder (CSBD), which warrants independent clinical attention.

### CSBD as a Comorbid Diagnosis

CSBD, now recognized in the ICD-11 as a distinct clinical entity under impulse control disorders, is characterized by a failure to control repetitive sexual behaviors despite adverse consequences (Organization, 2019). In this case, the patient's excessive pornography use, emotional preoccupation with sexual gratification, and distress over failed attempts to control such behavior point toward a dual diagnosis of BAD and CSBD. Studies suggest that comorbidity between mood disorders and CSBD is not uncommon, though often underdiagnosed due to stigma or clinical oversight (Kraus et al., 2016).

Emerging evidence from neuroimaging and clinical studies indicates that both CSBD and BAD share dysregulation in cortico-striatal-limbic circuits, involving dopamine-mediated reward pathways and prefrontal inhibition systems (Schmidt et al., 2022). This neurobiological overlap may explain why individuals with BAD are more vulnerable to developing CSBD, especially in the context of childhood trauma or emotional neglect (Giugliano, 2022).

# **Emotional Dysregulation and Maladaptive Coping**

One of the central themes in this case is the use of compulsive sexual behavior as a maladaptive coping strategy for managing negative emotions. Emotion dysregulation is a transdiagnostic factor implicated in both BAD and CSBD. According to Lew-Starowicz et al. (2020), individuals who struggle to identify, express, and regulate emotional experiences are more likely to resort to behaviors that offer temporary relief, such as sexual activity or substance use.

For this patient, pornography consumption became a primary mode of affect regulation—used to suppress feelings of isolation, frustration, and inadequacy. This aligns with studies indicating that CSB may serve as a pseudo-soothing behavior aimed at emotional avoidance rather than genuine pleasure-seeking (Reid et al., 2019). Furthermore, the patient's interpersonal avoidance and dependency traits suggest a developmental history of insecure attachment and poor emotional scaffolding, which likely compounded his vulnerability to maladaptive coping mechanisms.

# Role of Early Trauma and Insecure Attachment

Several lines of research support the association between early adverse experiences—such as emotional abuse, neglect, or familial conflict—and the development of both bipolar disorder and CSBD. A meta-analysis by (Grady & Keane, 2021) concluded that childhood trauma significantly predicts impulsivity, emotion dysregulation, and maladaptive sexual behaviors in adulthood. These findings support the clinical need to incorporate trauma screening into psychiatric evaluations, particularly when CSB is present.

The patient's dependency on his mother, withdrawal from peers, and reluctance to form romantic relationships point toward an insecure attachment style. Insecure attachment has been shown to mediate the relationship between childhood trauma and adult psychopathology, particularly in the

development of addictive and compulsive behaviors (Giugliano, 2022; Weiss, 2022). This reinforces the necessity for trauma-informed and attachment-sensitive approaches to therapy.

#### Neurobiological Insights: Dopaminergic Dysregulation

The neurobiology of CSBD and BAD provides a compelling explanation for their comorbidity. In both conditions, dysregulation of dopamine pathways —especially in the mesolimbic system— plays a central role. In mania, increased dopamine transmission is associated with heightened motivation, impulsivity, and reward sensitivity, which may predispose individuals to engage in compulsive behaviors such as sexual activity (Carnes, 2020). Similarly, individuals with CSBD exhibit hyperactivity in the ventral striatum and reduced activation in prefrontal regions responsible for executive control and inhibition (Schmidt et al., 2022).

These neural abnormalities are compounded by structural changes in the anterior cingulate cortex and orbitofrontal cortex, regions critical for evaluating consequences and modulating behavior. Therefore, treatment strategies should not only focus on symptom control but also consider neurocognitive rehabilitation and skills training to enhance executive functioning.

#### **Therapeutic Interventions**

Cognitive Behavioral Therapy (CBT) remains the first-line treatment for CSBD, particularly effective in reducing compulsive behaviors by targeting cognitive distortions, impulse control deficits, and emotional regulation skills (Hallberg et al., 2017). In bipolar patients, CBT can be adapted to address mood instability and sexual impulsivity concurrently. Other promising approaches include Mindfulness-Based Cognitive Therapy (MBCT) and Schema Therapy, especially for patients with trauma histories and personality vulnerabilities (Larraz et al., 2023; Weiss, 2022).

Pharmacological management is often adjunctive. While mood stabilizers such as lithium or valproate may reduce impulsivity, their effects on CSB are indirect. Selective serotonin reuptake inhibitors (SSRIs) have shown some efficacy in reducing sexual preoccupation, but their use in bipolar patients is complex due to the risk of inducing manic episodes (Leem et al., 2020).

Spiritual and religious-based interventions may also provide emotional and existential support for patients. As highlighted in a review on residual schizophrenia involving spiritual dimensions by Al Hajiri et al. (2022), such approaches are relevant for integrated care models in bipolar disorder with co-occurring CSB. These interventions may assist patients in finding meaning, strengthening personal values, and fostering recovery motivation, particularly among individuals from culturally or spiritually engaged backgrounds.

### Psychotherapeutic Interventions and Clinical Implications

Cognitive Behavioral Therapy (CBT) has shown strong empirical support for treating CSBD and mood disorders. CBT protocols typically target distorted beliefs around sexuality, improve emotional regulation, and introduce behavioral strategies for impulse control (Hallberg et al., 2017). In this case, CBT was utilized to help the patient identify triggers, restructure maladaptive thought patterns, and replace avoidance behaviors with healthier coping strategies.

Mindfulness-Based Cognitive Therapy (MBCT) and Schema Therapy have also shown promise in treating patients with complex trauma histories and co-occurring CSBD (Larraz et al., 2023). These modalities emphasize the cultivation of emotional awareness, the restructuring of deep-seated maladaptive schemas, and the enhancement of self-compassion.

Pharmacological interventions remain secondary but may offer supportive benefits. While mood stabilizers such as lithium or valproate can attenuate manic symptoms and reduce impulsivity, they may not directly address CSB. SSRIs have demonstrated some efficacy in reducing sexual preoccupation; however, their use in bipolar patients must be approached cautiously due to the risk of triggering manic switches (Leem et al., 2020).

### **Integrative Clinical Approach**

This case exemplifies the importance of comprehensive, integrative assessment and treatment planning. Rather than viewing CSB as merely a symptom of mania, clinicians should assess its functional role in the patient's emotional life and consider its potential chronicity. A trauma-informed lens is particularly important, as it acknowledges the psychological roots of compulsive behaviors and avoids pathologizing the individual.

Furthermore, early detection of CSB in bipolar patients may improve long-term outcomes by preventing escalation, reducing shame, and fostering therapeutic alliance. Multidisciplinary collaboration between psychiatry, clinical psychology, and family therapy can enhance intervention effectiveness, especially in cases with significant developmental and relational factors. In addition to biomedical and psychological models, culturally sensitive approaches—such as spiritually integrated psychotherapy—may further personalize care for individuals with bipolar disorder and co-occurring compulsive behaviors.

### Limitations and Strengths of the Case Report

This case report provides valuable insight into the clinical presentation and therapeutic complexity of co-occurring CSB and BAD. One of the main strengths is its detailed description of the patient's psychological history, symptom patterns, and integrative intervention plan. Furthermore, the report contextualizes CSB within the broader framework of neurobiology, trauma, and affective disorders, offering clinicians a multifaceted understanding.

However, limitations must be acknowledged. This report is based on a single case and may not be generalizable to all populations or clinical settings. Additionally, the absence of long-term follow-up restricts conclusions about treatment durability. Future case studies should aim to incorporate standardized scales, structured diagnostic tools, and extended outcome evaluations to enhance clinical relevance and reproducibility.

### **Comparative Literature Reflection**

Compared to other published case reports (Fiandor-Montesino et al., 2023), which emphasize pharmacological management of co-occurring CSBD and BAD, this case highlights the role of psychotherapeutic modalities, particularly CBT and trauma-informed care. It also draws attention to family dynamics and spiritual dimensions, which are often underexplored in similar clinical narratives.

In studies conducted in high-income countries, greater emphasis is often placed on neuroimaging and pharmacogenetic markers. This case underscores the value of context-sensitive interventions in resource-limited environments, including psychoeducation and caregiver engagement. By expanding the cultural and therapeutic lens, this report contributes to a more inclusive understanding of mental health care for dual-diagnosis patients.

# **Future Directions in Clinical Practice**

Looking ahead, it is crucial for clinical settings to develop structured training programs for healthcare professionals on the recognition and management of Compulsive Sexual Behavior Disorder (CSBD) in mood disorder populations. Increasing awareness among general practitioners, psychiatric nurses, and psychologists can foster early identification, reduce stigma, and improve treatment adherence. Additionally, the incorporation of standardized screening tools for CSB in psychiatric evaluations may enhance diagnostic accuracy and promote timely referrals to specialized care.

Collaborative research across institutions, particularly in low- and middle-income countries, is also essential to understand sociocultural factors influencing CSBD. A greater focus on cross-cultural comparisons and gender-specific patterns may help create targeted psychoeducational materials, family interventions, and public health strategies that are both inclusive and contextually relevant.

# CONCLUSION

Compulsive sexual behavior (CSB) constitutes a significant but often overlooked clinical challenge in individuals with Bipolar Affective Disorder (BAD)(Obo et al., 2019). As highlighted in this case, CSB may manifest not only as a symptom of mania but also as a chronic maladaptive strategy for managing negative affect and unresolved trauma. The patient's persistent pornography use, emotional dependency, and interpersonal avoidance reveal the complex interaction of neurobiological vulnerabilities, attachment disturbances, and affective dysregulation.

Recognizing CSB as more than a transient behavioral issue is essential. When left untreated, it can severely compromise functional outcomes, exacerbate psychiatric symptoms, and impair therapeutic engagement. The comorbidity of BAD and CSBD necessitates a holistic diagnostic framework that integrates neuropsychiatric, developmental, and psychosocial dimensions.

Psychotherapeutic interventions such as Cognitive Behavioral Therapy (CBT) show promise in addressing compulsive behaviors by enhancing emotional regulation and cognitive control. However, for patients with trauma histories and personality vulnerabilities, standard CBT should be complemented with trauma-informed and attachment-based approaches. Integrating psychoeducation, relapse prevention, and gradual social reintegration can enhance long-term recovery and prevent relapse.

This case underscores the importance of comprehensive clinical assessment, individualized treatment planning, and destigmatization of CSB in psychiatric settings (Briken et al., 2024). Future research should focus on longitudinal studies evaluating the effectiveness of combined psychotherapeutic and pharmacologic interventions in patients with dual diagnoses. Greater awareness and early intervention strategies are critical in mitigating the chronicity and psychosocial burden associated with CSB in bipolar populations.

The recognition of CSB in clinical psychiatric settings must evolve beyond incidental observation. Integrating routine screening protocols and evidence-based treatment pathways into bipolar disorder management could significantly enhance therapeutic outcomes. Importantly, public mental health policies should address compulsive sexual behavior with the same urgency afforded to other behavioral addictions. Only through a collaborative, destigmatizing, and evidence-driven approach can dual diagnoses like BAD and CSBD be managed effectively in diverse sociocultural contexts.

### REFERENCES

- Al Hajiri, A. Z. Z., Azizah, N. A. S., & Algristian, H. (2022). The role of religion and spirituality in managing residual schizophrenia: Article review. *International Islamic Medical Journal*, 3(1), 45– 50. https://doi.org/10.33086/iimj.v3i1.2493
- Briken, P., Bőthe, B., Carvalho, J., Coleman, E., Giraldi, A., Kraus, S. W., Lew-Starowicz, M., & Pfaus, J. G. (2024). Assessment and treatment of compulsive sexual behavior disorder: A sexual medicine perspective. *Sexual Medicine Reviews*, 12(3), 355–370. https://doi.org/10.1093/sxmrev/qeae014
- Carnes, P. (2020). Out of the shadows: Understanding sexual addiction (3rd ed.). Hazelden Publishing.
- Costa, M. C. D., & Pacheco, J. P. (2019). Hypersexuality and bipolar disorder: A systematic review. *Brazilian Journal of Psychiatry*, 41(6), 563–570. https://doi.org/10.1590/1516-4446-2018-0379

- Fiandor-Montesino, J., Kusakavitch, M., Kakarlapudi, R., & Puthiyathu, M. (2023). Management of concurrent bipolar I disorder and compulsive sexual behavior disorder: A case report. https://doi.org/10.7759/cureus.45016
- Giugliano, J. (2022). Sexual compulsivity, trauma, and attachment: A review. Journal of Sexual Addiction & Compulsivity, 29(1), 43–56. https://doi.org/10.1080/10720162.2021.2019212
- Gómez-Beneyto, M., Cano-Climent, A., & Vila-Francés, J. (2023). Hypersexuality and affective disorders: A neglected clinical overlap. *Journal of Affective Disorders Reports*, 13, 100498. https://doi.org/10.1016/j.jadr.2023.100498
- Grady, C. R., & Keane, T. M. (2021). The link between early trauma and adult compulsive behavior: A meta-analytic review. *Journal of Traumatic Stress*, 34(4), 723–735. https://doi.org/10.1002/jts.22712
- Hallberg, J., Kaldo, V., Arver, S., Dhejne, C., & Öberg, K. G. (2017). A cognitive-behavioral therapy group intervention for hypersexual disorder: A feasibility study. *Journal of Sexual Medicine*, 14(7), 950–958. https://doi.org/10.1016/j.jsxm.2017.05.004
- Kraus, S. W., Krueger, R. B., Briken, P., First, M. B., Stein, D. J., Kaplan, M. S., & Reed, G. M. (2018). Compulsive sexual behaviour disorder in the ICD-11. World Psychiatry, 17(1), 109– 110. https://doi.org/10.1002/wps.20499
- Kraus, S. W., Voon, V., & Potenza, M. N. (2016). Should compulsive sexual behavior be considered an addiction? *Addiction*, 111(12), 2097–2106. https://doi.org/10.1111/add.13297
- Larraz, A. M. C., Moya, A. V, & Actis, C. C. (2023). Mindfulness-based intervention and sexuality: A systematic review. In *Trends in Psychiatry and Psychotherapy*. https://doi.org/10.47626/2237-6089-2021-0459
- Leem, M. Y., Lee, S., & Kim, M. H. (2020). Clinical features and risk factors associated with compulsive sexual behavior among individuals with mood disorders. *Psychiatry Investigation*, 17(5), 476–484. https://doi.org/10.30773/pi.2020.0013
- Lew-Starowicz, M., Lewczuk, K., Nowakowska, I., Kraus, S., & Gola, M. (2020). Compulsive sexual behavior and dysregulation of emotion. *Sexual Medicine Reviews*, 8(2), 191–205. https://doi.org/10.1016/j.sxmr.2019.10.003
- Marengo, D., Settanni, M., & Montag, C. (2021). Exploring the role of hypersexuality and impulsivity in bipolar patients: A network analysis. *Frontiers in Psychiatry*, 12, 700255. https://doi.org/10.3389/fpsyt.2021.700255
- Obo, C. S., Sori, L. M., Abegaz, T. M., & Molla, B. T. (2019). Risky sexual behavior and associated factors among patients with bipolar disorders in Ethiopia. *BMC Psychiatry*, *19, Article 234*. https://doi.org/10.1186/s12888-019-2313-2
- Organization, W. H. (2019). ICD-11 for mortality and morbidity statistics. https://icd.who.int/

Reid, R. C., Kafka, M. P., & Carpenter, B. N. (2019). Predicting relapse in hypersexual disorder: Self-efficacy, emotion regulation, and interpersonal functioning. *Sexual Addiction & Compulsivity*, 26(4), 327–348. https://doi.org/10.1080/10720162.2019.1686559

- Schmidt, H. M., Holst, Y., & Müller, K. W. (2022). Neural correlates of compulsive sexual behavior: A meta-analytic review of fMRI studies. *Journal of Behavioral Addictions*, 11(1), 148– 160. https://doi.org/10.1556/2006.2022.00001
- Weiss, R. (2022). Prodependence: Moving beyond codependency. Health Communications Inc.