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## COMMENTARY



\*Corresponding author.

E-mail: nborgogn@ttu.edu



# Another failure of the latent disease model? The case of compulsive sexual behavior disorder

## Commentary to the debate: “Behavioral addictions in the ICD-11”

NICHOLAS C. BORGOGNA<sup>1\*</sup> and STEPHEN L. AITA<sup>2</sup>

<sup>1</sup> Department of Psychological Sciences, Texas Tech University, Lubbock, TX, United States

<sup>2</sup> Veterans Affairs Maine Healthcare System, Augusta, ME, United States

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### ABSTRACT

Recent debates have evolved regarding the classification/conceptualization of compulsive sexual behavior disorder (CSBD). Conclusions regarding an agreed upon CSBD model are hindered by reliance on the latent disease model. Competing biological-based frameworks are moving forward to replace latent disease classification more broadly but have been met with limited success. We suggest that CSBD researchers move towards developing dimensional, transtheoretical, process-based models. We further suggest additional research, particularly mixed methods and longitudinal studies. Finally, we request that federal funding bodies take a more active role in supporting CSBD research.

### KEYWORDS

compulsive sexual behavior disorder, latent disease model, RDoC, behavioral addiction, classification

The recent inclusion of compulsive sexual behavior disorder (CSBD) in the International Classification of Diseases 11th Revision (ICD-11; [World Health Organization \[WHO\], 2022](#)) represents formal recognition of a hypothesized latent disease driving problematic sexual behaviors. The current definition indicates that CSBD is *a persistent pattern of failure to control intense, repetitive sexual impulses or urges resulting in repetitive sexual behavior. Symptoms may include repetitive sexual activities becoming a central focus of the person’s life to the point of neglecting health and personal care or other interests, activities and responsibilities; numerous unsuccessful efforts to significantly reduce repetitive sexual behavior; and continued repetitive sexual behavior despite adverse consequences or deriving little or no satisfaction from it. The pattern of failure to control intense, sexual impulses or urges and resulting repetitive sexual behavior is manifested over an extended period of time (e.g., 6 months or more), and causes marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning. Distress that is entirely related to moral judgments and disapproval about sexual impulses, urges, or behaviors is not sufficient to meet this requirement (WHO, 2022).*

Recent publications by [Brand et al. \(2022\)](#), [Gola et al. \(2022\)](#), and [Sassover and Weinstein \(2022\)](#) have energized the debate about how to best conceptualize problematic, addictive, impulsive, compulsive, and/or hypersexual behaviors. Additionally, several authors have identified problems with the current CSBD classification. For example, [Böthe et al. \(2022\)](#) highlighted problems with the classification, such as why a “compulsive” problem is categorized under the “impulse control” category in the ICD-11. Similarly, others have opined that alternative classifications, particularly addiction models, may be more appropriate and should not be ruled out ([Castro-Calvo et al., 2022](#); [Lew-Starowicz & Coleman, 2022](#); [Rumpf](#)

& Montag, 2022). In short, the essence of the arguments surrounding the characterization of CSBD is whether it is an addiction, impulse control disorder, aspect of a broader syndrome, or perhaps not a disorder at all. In joining this debate, we argue that this issue cannot be solved by virtue of the current state of the literature or our current understanding of mental illness. Indeed, a fundamental problem with this debate is the reliance on a latent disease model for diagnostic classification.

The latent disease model suggests that a psychiatric diagnosis is best understood as a “syndrome characterized by clinically significant disturbance in an individual’s cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning” (American Psychiatric Association, 2013; p. 20). This is the model espoused by the United States via the Diagnostic and Statistical Manual (DSM), and internationally via the ICD-11. This model assumes that all presentations are reflective of underlying latent diseases. Much the same way a fever is a symptom of underlying COVID-19, chronic pornography use could be a symptom of underlying CSBD. The problem, however, occurs when trying to determine the etiology. In the former example, COVID-19 can be easily detected via an antibody test (among other validated methods). When a positive test is observed, the probability of the symptoms being attributable to a disease with similar symptoms (e.g., influenza) drops to almost zero (excepting rare cases of comorbidity). Medical professionals, governing bodies, and the public have a general trust in such methodologies as there is robust scientific documentation of reliable and valid biological markers associated with COVID-19 and other pathogenic diseases.

The problem is such strict biomedical models do not work, or at a minimum are not easily translatable, to psychiatric illnesses. Few psychiatric illnesses share robust biological markers, with almost none of them being easily measurable. Currently, the accepted diagnostic approach is to conduct in-depth assessments via clinical interview and/or test administration to identify which cluster of symptoms match a preferred definition. In theory, this approach should lead to reliable and valid psychiatric diagnoses. However, after decades of research, this approach is only reliable at best (Insel et al., 2010). Indeed, the validity of psychiatric diagnoses, particularly discriminant validity, is almost always unsatisfactory. When a diagnosis of CSBD is determined, the probability of also being diagnosed with a separate psychiatric disorder does not drop to near zero – it increases. In other words, comorbidity is the rule not the exception. While this problem exists for virtually all psychiatric diagnoses (Jakovljević & Crnčević, 2012; van Loo, Romeijn, de Jonge, & Schoevers, 2013), it is particularly problematic for CSBD. For instance, Ballester-Arnal, Castro-Calvo, Giménez-García, Gil-Juliá, and Gil-Llario (2020) found that 91.2% of participants diagnosed with CSBD also met criteria for a comorbid axis 1 disorder. As such, new classification approaches are needed. By extension, it is a moot question whether CSBD is an addiction or impulse control disorder (or something else).

In all likelihood, there is a confluence of etiologies resulting in various CSBD presentations, some best fitting under an addiction framework and others an impulse control framework. Many presentations might be explainable from multiple frameworks simultaneously. For instance, how many clients struggling with impulsive aspects of sexual behavior (e.g., trying to resist morally incongruent urges to masturbate) also deal with addictive aspects of sexual behavior (e.g., viewing increasing amounts of harder content pornography)? Trying to parse out which model is preferable using mid-level terminology is equivalent to pathologists discussing a “Fever model of COVID-19” versus a “Cough model of COVID-19”. The COVID-19 nosology does not devolve into such debates because the etiology behind any COVID-19 presentation is easily identifiable via biological marker. Embarrassingly, this is what the argument looks like when we debate addiction versus impulse control models for CSBD. Until a better understanding of the underlying etiology (or etiologies) is developed, no agreed upon answer to the CSBD classification issue will be available.

## COMPETING CLASSIFICATION SYSTEM: RDoC

Recognition of the problems associated with the latent disease model are not new. In the words of Hoffman and Hayes (2019), release of the DSM-5 in 2013 was met with “a notable lack of enthusiasm in almost every corner of the field” (p. 39). The same can easily be said for the current DSM-5-TR, as well as the ICD-11. In partial recognition of this problem, in the United States, the National Institute of Mental Health (NIMH) has largely moved away from a latent disease model as a program of research. In 2010, NIMH ushered in the era of the Research Domain Criteria or RDoC (Insel et al., 2010). The primary aim of the RDoC is to provide data on the basic biological processes related to mental health by developing psychiatric nosologies anchored in neuroscience instead of descriptive phenomenology (Cuthbert, 2014). By focusing on identifiable biological indicators of specific behavioral phenomena, valid diagnostic entities may become a reality. Extended to CSBD, if specific biological markers could be identified then research, treatment, and prevention would improve substantially.

While the RDoC represents a welcome alternative to the latent disease model as an advancement of CSBD research, it is not without criticism. The RDoC has been viewed as biologically reductionistic (Parnas, 2014), with others arguing that the fundamental approach to mental illness is flawed (Ross & Margolis, 2019). Concerningly, despite more than 10 years of RDoC funded programs, relatively few fundamental changes in the way we understand psychiatric illnesses have been identified.

Most concerning for CSBD, many presentations may not actually have any biological markers that are invariant/replicable on quantitative scales. The Moral Incongruence Model of problematic pornography use (Grubbs, Perry, Wilt, & Reid, 2019) exemplifies one potential issue. Religious individuals, particularly those who are “scrupulously” religious,



indicate experiencing significant perceptions that their pornography use is problematic (Borgogna, Isacco, & McDermott, 2020) or even addictive (Grubbs, Exline, Pargament, Hook, & Carlisle, 2015). Yet, in many of these cases, they do not actually consume abnormal amounts of pornography, certainly not enough to be considered “addictive” in the same way as tobacco, narcotics, and alcohol (hence the term “perceived addiction” to pornography; Grubbs et al., 2015). As such, if a person describes their experience as “addictive” but does not demonstrate behavior that is consistent with the current conceptualization of addiction, it is unlikely that underlying biomarkers would be consistent between perceived addiction and actual addiction cases. In the same vein, Jennings, Gleason, and Kraus (2022) noted concern for how professionals conceptualize CSBD when considering individuals from minoritized sexual identity backgrounds. Indeed, pornography use and other sexual behaviors may be more frequent in sexually diverse people, yet this may not mean that it is necessarily associated with additional distress (Bóthe, Vaillancourt-Morel, Bergeron, & Demetrovics, 2019). Accordingly, identifying invariant biomarkers correlated with behavior would be difficult if the subjective distress associated with the behavior is non-invariant. Cultural factors influence the way behavior is perceived and experienced; in this context, it is unlikely that a purely biological explanation will be possible for all CSBD presentations.

## SO WHERE DO WE GO?

Finding a balance between valid biological indicators, culture, and subjective experience is no easy task. At this time, no definitive answer can be identified. However, some suggestions are offered in the spirit of leading us to a valid model of CSBD. First, in echoing the statements of Jennings et al. (2022), theoretical models of CSBD need to be tested against one another. It is hoped that researchers will put forth new/updated transtheoretical, dimensional (as opposed to categorical classification), and biopsychosocial frameworks of CSBD and then test them against existing models. Rigor and parsimony should be favored, and measurement should be examined with more scrutiny than is currently being employed (c.f., Fernandez & Griffiths, 2021; Kohut et al., 2020; Marshall & Miller, 2019). Researchers are also encouraged to take a process-based approach to hopefully avoid the “addiction” vs “impulse control” debates in model development. Scholars adopting process-based research in other areas may provide useful examples of the direction CSBD researchers want to go (see Hayes, Hofmann, & Ciarrochi, 2020; Hong & Cheung, 2015; Mendelson, Gates, & Lerner, 2016 for examples).

Second, a more fundamental understanding of the basic phenomenology of CSBD is needed. The current body of work is overwhelmingly cross-sectional and non-representative (Grubbs et al., 2020; Kowalewska, Gola, Kraus, & Lew-Starowicz, 2020). As such, more longitudinal, qualitative, mixed methods, and experimental designs are necessary. Advances in

technology and statistical packages have made intensive longitudinal research, such as ecological momentary assessment studies, much easier today than in past times. These should be better utilized by CSBD researchers. More basic neuroscientific studies are also cautiously recommended. While the neuroscience of CSBD is burgeoning (Draps, Kowalczyk-Grębska, Marchewka, Shi, & Gola, 2021; Golec, Draps, Stark, Pluta, & Gola, 2021; Kowalewska et al., 2018, 2020), and will likely be aided by RDoC, funding for imaging studies should not necessarily be prioritized over well designed longitudinal and mixed methods approaches, at least until imaging technologies improve. This “cautious” recommendation is a direct result of the current methodological/reproducibility crisis ongoing within the neuroimaging community (Eklund, Nichols, & Knutsson, 2016; Marek et al., 2022; Mueller, Lepsien, Möller, & Lohmann, 2017; Turner, Paul, Miller, & Barbey, 2018). Altogether, a better understanding of the basic phenomenology will aid in the construction/revision of theoretical models to be tested.

Third, in echoing the sentiments of Borgogna, Garos, Meyer, Trussell, and Kraus (2022), more funding is necessary for CSBD projects. Particularly, federal funding mechanisms across the developed world are needed to advance the programs of research necessary to identify valid CSBD models. Even if the classification is imperfect, the current ICD-11 recognition of CSBD justifies the need for funding from federal bodies. With substantial financial support, improved models can be developed and then tested against one another. It is hoped that funders will better acknowledge this need in the service of improving the prevention, treatment, and understanding of CSBD.

In conclusion, it is our hope that the current classification debates evolve into empirical contests with data being the metric of evaluation. As with all sciences, the growing pains of developing scientific paradigms requires constant reevaluation. The current debates are indicative of a scientific developmental milestone. CSBD researchers have an opportunity to move beyond the fringes and into mainstream psychiatric illness research should they rise to the opportunity.

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