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COMMENTARY



Disorders due to addictive behaviors: Further issues, debates, and controversies

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

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ABSTRACT

Two recent papers in the *Journal of Behavioral Addictions* by Brand et al. (2022), and Sassover and Weinstein (2022) both make interesting additions to the place of behavioral addictions in the more general addictive behaviors field. This commentary discusses some of the further nuances in the debates surrounding whether problematic engagement in social networking, pornography, and buying/shopping should be considered as possible ‘disorders due to addictive behaviors’ in the ICD-11. Particular emphasis in this commentary is placed on social network use disorder and its delineation. While there is growing evidence that addictions to sex, pornography, social network sites, exercise, work, and buying/shopping may be genuine disorders among a minority of individuals, none of these behaviors is likely to be included in formal psychiatric manuals in the near future until there is more high-quality data on all research fronts (e.g., epidemiological, neurobiological, psychological, and clinical).

KEYWORDS

behavioral addictions, social network use disorder, pornography use disorder, buying-shopping disorder, sex addiction, compulsive sexual behavior disorder

INTRODUCTION

The 11th revision of the *International Classification of Diseases* (ICD-11; [World Health Organization, 2019](#)) includes two behaviors (gambling disorder and gaming disorder) that have been classified as “disorders due to addictive behaviors”. The classification of behaviors that do not involve the ingestion of a psychoactive substance as genuine addictions has wide implications for the addictive behaviors fields as it opens up the possibility of any behavior that causes significant clinical impairment having the potential to be classified as an addictive behavior ([Griffiths, 2005](#)). However, this has led to debates about everyday behaviors being over-pathologized ([Billieux, Schimmenti, Khazaal, Maurage, & Heeren, 2015](#)).

Two recent papers in the *Journal of Behavioral Addictions* by [Brand, Rumpf, Demetrovics, et al. \(2022\)](#), and [Sassover and Weinstein \(2022\)](#) both make interesting additions to the place of behavioral addictions in the more general addictive behaviors field. Despite continuing controversy about the pathologizing of everyday behaviors, [Brand, Rumpf, Demetrovics, et al. \(2022\)](#) outlined three behaviors (pornography use disorder, buying-shopping disorder, and social network use disorder) as being possible behaviors that could be considered for the ICD-11 category of “other specified disorders due to addictive behaviors”. As someone who has spent 35 years researching behavioral addictions, it will come as no surprise that I agree with much of what Brand et al. proposed and posited in their paper. I have been researching addictions to gambling and gaming for over 30 years and have applied my findings and

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thinking in these two behaviors to many other ‘everyday’ behaviors including the three potential disorders outlined by Brand, Rumpf, Demetrovics, et al. (2022). The remainder of this commentary is based on my longevity in the field coupled with the wide range of behavioral addictions I have studied empirically.

CURRENT PROBLEMS IN THE BEHAVIORAL ADDICTION FIELD

I believe it will be some time before pornography use disorder, buying-shopping disorder, and social network use disorder get included in diagnostic manuals mainly because there is a lack of high-quality research in all three areas. In relation to self-report data, there are very few largescale nationally representative epidemiological studies in any of the three proposed disorders, and much of the self-report data comprise small self-selected convenience samples (Fernandez & Griffiths, 2021; Kuss & Griffiths, 2017; Maraz, Griffiths, & Demetrovics, 2016). There is also a lack of neuroimaging studies compared to the numbers of published studies in gambling disorder and gaming disorder (Kuss, Pontes, & Griffiths, 2018). Another area where there is a dearth of studies in the three proposed disorders is the lack of peer-reviewed research comprising clinical samples and the efficacy of treatment programs. Even if there was enough empirical and clinical evidence for the formal recognition of pornography use disorder, buying-shopping disorder, and social network use disorder, there are also issues concerning what these disorders should be called and/or whether they should be viewed as sub-disorders of other more clinically recognized conditions. These issues are discussed in the following sections.

SOCIAL NETWORK USE DISORDER

Social network use disorder may be too narrow a descriptor as a potential behavioral addiction and the more recent literature tends to use the terms ‘social media disorder’ (Van den Eijnden, Lemmens, & Valkenburg, 2016) or ‘social media addiction’ (e.g., Andreassen et al., 2016). However, social media use and social network use are clearly not the same (Kuss & Griffiths, 2017) and there are many subtle but distinct differences between social media sites such as *Twitter*, *Facebook*, *Instagram*, and *Snapchat*. There are also other forms of social media platforms such as *YouTube* which are arguably very different from (say) *Twitter* and *Instagram*. There are also many online dating platforms which have been argued to be a form of social networking (Kuss & Griffiths, 2017) and associated studies claiming some of these sites (e.g., *Tinder*) can be potentially problematic or addictive for a minority of users (Bonilla-Zorita, Griffiths, & Kuss, 2021; Orosz, Tóth-Király, Bóthe, & Melher, 2016, 2018).

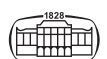
Another problem is that some social networking sites (like the Internet more generally) have multi-functions and offer multiple activities for users. For instance, on *Facebook*, users can (i) interact with their *Facebook* friends with text-

based messages, (ii) share photos, selfies, and videos, (iii) play digital games, and (iv) gamble (Griffiths, 2012). There numerous studies on *Facebook* addiction using a variety of *Facebook* addiction scales, but what are the scales assessing if the *Facebook* platform provides opportunities to engage in multiple potentially addictive activities? Is someone who constantly plays *Farmville* on *Facebook* to the neglect of everything else in their life to the point of clinical impairment a social networking addict, a social media addict and/or a gaming addict? If social networking sites offer multi-activities to engage in, the medium is arguably no different from the Internet and smartphones. As has previously been argued, users are no more addicted to the Internet and smartphones than alcoholics are addicted to bottles (Kuss & Griffiths, 2017). It is the applications on (say) *Facebook* rather than *Facebook* itself which are potentially addictive. If social media disorder or social network use disorder ever become formal diagnostic entities, it is these kinds of definitional issues that will need to be clarified.

Another key problem in the extant literature concerning addiction to social media is that most studies tend to examine specific social networking sites rather than social media use as a whole. Most published studies to date have concentrated on *Facebook* addiction mostly because of its longevity compared to other social networking sites (Kuss & Griffiths, 2017), but more recently there have been empirical studies on addictions to *Instagram* (Kircaburun & Griffiths, 2018, 2019), *Twitter* (Kircaburun, 2016), *TikTok* (Zhang, Wu, & Liu, 2019; Zhou & Lee, 2021), *QQ* (Liu, Ahmed, Ahmed, Griffiths, & Chen, 2021), *Bilibili* (Yang, Griffiths, Yan, & Xu, 2021), *Snapchat* (Meshi, Turel, & Henley, 2020; Punyanunt-Carter, De La Cruz, & Wrench, 2017), and *YouTube* (Balakrishnan & Griffiths, 2017; de Bérail et al., 2019; Klobas, McGill, Moghavvemi, & Paramanathan, 2018). There is also a growing literature on particular micro-behaviors engaged in on social media platforms being potentially addictive such as individuals who post up to 200 selfies a day on social media and spending many hours a day and using filtering software to post ‘perfect’ selfies to get as many ‘likes’ as possible from their followers (Balakrishnan & Griffiths, 2018; Monacis, Griffiths, Limone, Sinatra, & Servidio, 2020; Pakpour, Lin, Lin, Imani, & Griffiths, 2020). There are also social media sites like *Bilibili* in China in which social interaction occurs in the form of scrolling comments (called ‘Danmu’ in Chinese) while watching short videos (Yang et al., 2021; Zhang & Cassany, 2020) and could be argued to be like a hybrid of *YouTube* and *Facebook*. In short, there are problems in conceptualizing whether social media disorder or social network use disorder should cover the totality of social media use, the use of one particular social media platform, or a specific behavior within a social media platform.

PORNOGRAPHY USE DISORDER AND BUYING-SHOPPING DISORDER

When it comes to pornography use-disorder, some argue that it is just a sub-type of compulsive sexual behavior



disorder and that it does not need to be a separate disorder (Andreassen, Pallesen, Torsheim, Demetrovics, & Griffiths, 2018; de Alarcón, de la Iglesia, Casado, & Montejo, 2019; Schneider, 1994). There are so many different types of sexual behavior that including pornography use disorder as a separate disorder ‘opens the floodgates’ for other types of problematic sexual behaviors to be formulated as disorders. Also, what is the potentially addictive element in pornography use? Is it the pornography or is it the masturbation that accompanies the pornography use? Is a compulsive masturbator clinically any different from compulsive pornography user? Are they the same thing?

Buying-shopping disorder may be less controversial in terms of nomenclature but arguably activities such as gambling could be classed as a buying disorder (and is certainly a spending money disorder) based on some definitions although I personally see gambling disorder and buying-shopping disorders as clinically and conceptually different. There is also an issue of whether the distinction between online and offline forms of the behavior in the ICD-11 are clinically and/or conceptually useful. Most potentially addictive activities (with the exception of exercise) can be carried out online (gambling, gaming, sex, work) or are exclusively engaged in online (social media use). Heavy users (including problematic users) of these activities are likely to engage in such activities both online and offline. The increasing reliance on online forms of these activity is simply because these activities can be accessed from wherever the individual is whether they are at home, at work, or in transit 24/7 if they have Wi-Fi access. The issue is simply one of convenience. If activities can be engaged in from mobile devices (smartphones, tablets, laptops), heavy users of specific potentially addictive activities will use such means to engage in their behavior of choice. The questions posed in this section concerning both pornography use disorder and buying-shopping disorder question the utility of viewing online forms of these disorders as being conceptually and clinically distinct.

OTHER POTENTIAL DISORDERS DUE TO ADDITIVE BEHAVIORS

Another issue that is worth raising is why Brand, Rumpf, Demetrovics, et al. (2022) only made the argument for three behaviors to be included in “*other specified disorders due to addictive behaviors*”. There are other potentially addictive behaviors that have been studied for far longer than addictions to social networking and pornography such as work addiction and exercise addiction, both of which have been studied for over 50 years (Baekeland, 1970; Little, 1969; Oates, 1968, 1971). Like addictions to pornography, social networking, and buying-shopping, there is a lack of large-scale nationally representative survey studies, few neuro-imaging studies, and very few studies comprising clinical samples and therefore there is little chance of any of these being formally recognized as addictive disorders in the near future. However, arguments could be made that the research

carried out to date on exercise addiction and work addiction fulfil the three meta-criteria outlined by Brand, Rumpf, Demetrovics, et al. (2022), particularly because there is lots of empirical evidence from multiple scientific studies for impaired control caused by work and exercise, increasing priority of (and preoccupation with) work and exercise, and continuation or escalation of work and exercise despite the experiencing negative consequences (e.g., Griffiths, Demetrovics, & Atroszko, 2018; Kun, Takacs, Richman, Griffiths, & Demetrovics, 2020; Sicilia, Paterna, Alcaraz-Ibáñez, & Griffiths, 2021; Szabo, Griffiths, & Demetrovics, 2018).

However, I have also been accused by others in the field of ‘watering down the concept of addiction’ and my research into ‘moot addictions’ such as addictions to tanning (so-called ‘tanorexia’) (Andreassen, Pallesen, Griffiths, Torsheim, & Sinha, 2018), study addiction (as a sub-type of work addiction) (Atroszko, Andreassen, Griffiths, & Pallesen, 2016), dancing (as a sub-type of exercise addiction) (Maraz et al., 2015), and excessive selfie-taking (so called ‘selfitis’) (Balakrishnan & Griffiths, 2018) have been the focus of debate and criticism (Billieux, Flayelle, Rumpf, & Stein, 2019; Kardefelt-Winther et al., 2017; Starcevic, Billieux, & Schimmenti, 2018). However, very few of these behaviors fulfil my six criteria for addiction (i.e., salience, conflict, mood modification, tolerance, relapse, and withdrawal) outlined in the ‘addiction components model’ (Griffiths, 2005) and I have responded to these criticisms elsewhere (see Griffiths, 2017, 2018, 2019).

Other recent papers by Gola et al. (2022) and Sassover and Weinstein (2022) both examined (in different ways), the extent to which excessive sexual behavior can be considered addictive, impulsive and/or compulsive. Sassover and Weinstein argued that the data supporting compulsive sexual behavior disorder (CSBD) as a behavioral addiction are limited and sparse, and that there are few largescale population-based studies. There are hundreds of published studies on problematic sexual behavior (see Grubbs et al. (2020) for a recent review) so the argument that the data are sparse is highly debatable. Maybe what Sassover and Weinstein really meant to say was that the number of studies with high-quality data are sparse. However, recent studies with high-quality data do appear to confirm that sex in its most excessive forms can be addictive, impulsive and/or compulsive using highly reliable and valid psychometric instruments (e.g., Andreassen, Pallesen, Torsheim, et al., 2018; Bóthe, Bartók, et al., 2018a, 2019a, 2019b, 2020, 2021) irrespective of definition or conceptualization of addiction. Previous reviews and comparative studies in the area have found support that problematic sex can be viewed as an addictive behavior and that there are similarities between sex as a behavioral addiction and psychoactive substance addictions in terms of studies from biological, psychological, epidemiological, sociological, and clinical perspectives (e.g., Konkoly Thege et al., 2016; Kraus, Voon, & Potenza, 2016; Sussman, Lisha, & Griffiths, 2011).

Sassover and Weinstein used my components model of addiction (Griffiths, 2005) to evaluate the existing literature about CSBD and concluded that most studies did not



include all the six of my components of behavioral addiction in their CSBD definition. However, sex addiction and CSBD while overlapping are not the same construct. There are also studies that have developed psychometric instruments based solely on the addiction components model to assess sex addiction and problematic pornography consumption which clearly have assessed all six addiction components (e.g., Andreassen, Pallesen, Torsheim, et al., 2018; Bóthe, Tóth-Király, et al., 2018) which Sassover and Weinstein did acknowledge.

The recent papers by Brand, Rumpf, Demetrovics, et al. (2022), and Sassover and Weinstein (2022) both make interesting additions to the place of behavioral addictions in the more general addictive behaviors field. While there is growing evidence that addictions to sex, pornography, social network sites, exercise, work, and buying/shopping may be genuine disorders among a minority of individuals, none of these behaviors is likely to be included in formal psychiatric manuals in the near future until there is further research collecting more high-quality data on all research fronts (e.g., epidemiological, neurobiological, psychological, and clinical).

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