This commentary supports the argument that there is an increasing tendency to subsume a range of excessive daily behaviors under the rubric of non-substance related behavioral addictions. The concept of behavioral addictions gained momentum in the 1990s with the recent reclassification of pathological gambling as a non-substance behavioral addiction in DSM-5 accelerating this process. The propensity to label a host of normal behaviors carried out to excess as pathological based simply on phenomenological similarities to addictive disorders will ultimately undermine the credibility of behavioral addiction as a valid construct. From a scientific perspective, anecdotal observation followed by the subsequent modification of the wording of existing substance dependence diagnostic criteria, and then searching for biopsychosocial correlates to justify classifying an excessive behavior resulting in harm as an addiction falls far short of accepted taxonomic standards. The differentiation of normal from non-substance addictive behaviors ought to be grounded in sound conceptual, theoretical and empirical methodologies. There are other more parsimonious explanations accounting for such behaviors. Consideration needs to be given to excluding the possibility that excessive behaviors are due to situational environmental/social factors, or symptomatic of an existing affective disorder such as depression or personality traits characteristic of cluster B personalities (namely, impulsivity) rather than the advocating for the establishment of new disorders.

**Keywords:** behavioral addictions, mental health, DSM-5, excessive behaviors

The article “Are we overpathologizing everyday life? A tenable blueprint for behavioral addiction research” by Billieux, Schimmenti, Khazaal, Maurage and Heeren (2015) highlights the threat to the concept of ‘behavioral addiction’ as a valid construct posed by the propensity for researchers and clinicians to overpathologize normal daily activities carried out to excess. The observation that some individuals exhibit an affinity, propensity or devotion to repeatedly engage in appetitive behavior is not new. The classical Latin term, ‘addictus’ (ad: ‘to’; dicetus: ‘say or declare’) refers to the concept of an individual being assigned by decree, made over, bound, or devoted to another or a thing (Online Etymology Dictionary). Historically, the term evolved to define a pathological condition involving the compulsive use of a substance and characterized by impaired control, tolerance and withdrawal symptoms (American Psychiatric Association, 2013). The present challenge remains as to how best to classify excessive behaviors within a taxonomic system that takes into account implications, if any, for diagnosis and management. Classification systems are designed to operationally define criteria that allocate cases to a particular disorder based on etiological and symptomatic similarities. Differentiating one disorder from another is useful in informing which appropriate treatment interventions ought to be applied.

As Billieux, Schimmenti et al. (2015) note, Marks (1990) suggested that a range of non-chemical behaviors could be subsumed under the label of addiction given putative similarities in their presentation. However, it is important to highlight that Marks included a mix of psychiatric disorders (obsessive compulsive, kleptomania, bulimia, and paraphilias) and normal behaviors engaged to excess (compulsive spending, overeating, and hypersexuality) for consideration. Unifying these behaviors under the concept of addiction was the presence of dysregulated impulse control and self-regulation as evidenced by persistent use despite negative consequences. Although opining that repetitive behaviors as addictive syndromes offered useful heuristics in guiding therapeutic interventions, he noted that these behaviors also manifested many differences in addition to similarities, and that further research was required. That similarity exists in the overt manifestation of these behaviors does not necessarily mean that they constitute a unified set of disorders.

Nevertheless, following Marks’ (1990) perspective, researchers have argued that the inherent similarities observed in the clinical course, symptoms, neuroscience, and response to treatment between substance and non-substance behaviors justify the inclusion of non-chemical behaviors under the addiction banner. In contrast, one concern related to DSM-5 (American Psychiatric Association, 2013) has been the potential implications of reclassifying pathological gambling as a non-substance behavioral addiction within the category of Addiction and Related Disorders in DSM-5 (American Psychiatric Association, 2013). This concern, now bearing justification, is that a range of repetitive appetitive behaviors carried to excess are increasingly argued to meet relevant criteria for inclusion within the behavioral addiction taxonomy. The literature is now replete with examples of activities that are carried to excess and labeled addiction.
tions; problem mobile phone use (Bianchi & Phillips, 2005; Lin et al., 2014), compulsive buying (Müller, Mitchell & de Zwaan, 2015); problematic video game play (Coefec et al., 2015; Jap, Tiatri, Jaya & Suteja, 2013); Internet (Young, 1998); food (Schulte, Avena & Gearhardt, 2015); dance (Maraz, Urban, Griffiths & Demetrovics, 2015; Targetetta, Nalpas & Perney, 2013); fortune telling (Grall-Bonnec, Bouju & Sauvaget, 2015), and study (Atroszko, Andreasen, Griffiths & Palleson, 2015).

Demonstrating the potential limitless boundary of such behaviors, Griffiths (2015) briefly reviewed the literature on ‘water addiction’ and concluded that “… it is theoretically possible for someone to become addicted to water and that there is no real difference to drug addictions in terms of conceptualisation and mechanism – just that the sheer amount of water that needs to be drunk to have a negative effect is large and highly unlikely”. Similarly, he describes several media reports that refer to some females exhibiting features suggesting the presence of an IVF addiction. Although extreme, these examples demonstrate the ease with which the number of identified addictive behaviors can proliferate.

Billieux, Schimmenti et al.’s article (2015) usefully highlights the potential pitfalls involved in the uncritical acceptance of labelling excessive behaviors as addictions. It becomes attractive for researchers to gain prominence and acceptance of labelling excessive behaviors as addictions without any consideration given to operationally defining the distinguishing criteria for these symptoms (Billieux, Schimmenti et al., 2015) – observation, development of a screening instrument copied from other disorders, and searching for confirmatory biological correlates – are insufficient in validating the discovery of a new disorder. For example, preoccupation, tolerance and withdrawal symptoms have been described as the hallmark features of a range of behavioral addictions without any consideration given to operationally defining the distinguishing criteria for these symptoms (Billieux, Maurage, Fernandez-Lopez, Kuss, & Griffiths, 2015). The presence of these symptoms is accepted more through the process of repetition and multiple cross referencing by researchers than empirical data derived from comparative studies. For behaviors such as smartphone, Internet and video gaming, the notion of defining tolerance or preoccupation can take on absurd qualities. It is patently absurd to argue that purchasing the latest technology or multiple phones is equivalent to tolerance, or that always accessing e-mail messages on these devices reflects a preoccupation. Here, it is argued, is the failure to distinguish between popularity and absorption in an enjoyable activity, and work/recreational communication needs, with a need to increase consumption to generate the same level of excitement. To date, no studies have empirically evaluated the defining features of preoccupation, withdrawal and tolerance in Internet oriented or daily behavioral addictions. Similarly, in the more researched domain of gambling disorders only two or three methodologically flawed studies exist comparing these features with those found in substance addiction (Blaszczynski, Walker, Sharpe & Nower, 2008). How then does the absence of any empirical studies comparing these features across behaviors justify or support the validity of the use of these items in any diagnostic screening instrument?

Of course, preoccupation, tolerance and withdrawal appear not necessary for behaviors to be considered an addiction. According to Schutte et al. (2015), food addiction is characterized by the presence of loss of control, persistence despite negative consequences, and inability to cut down despite the desire to do so. Similarities in biologically-based reward system dysfunctions involving dopaminergic neurotransmitters found in both patterns of eating certain foods and substance addictions further reinforce the concept of an excessive behavior as an addiction.

It is not disputed that these behaviors when taken to excess result in significant detrimental outcomes. Significant psychological and physical harms may emerge as a result of chronically consuming a diverse range of consummatory activities to extreme ends. What is questioned is the necessity to pathologize these behaviours by framing them as addictive disorders, the failure to consider alternative etiological explanations, and the implications for treatment based on taxonomy.

Pathological or gambling disorders can be used as an illustrative case. Originally classified as an impulse control disorder, comparative studies confirmed the presence of clinical and phenomenological similarities between pathological gambling and other conditions contained within that category (McElroy, Hudson, Pope, Keck & Aizley, 1992). Findings of elevated impulsivity traits consolidated the validity of its classification. McElroy et al. (1992) concluded that the conditions contained within the impulse control disorders category appeared to be related to one another and to mood, anxiety, and psychoactive substance use disorders. Ironically it seems the same arguments justifying the reclassification of gambling disorder as an addiction (similarity of features) were earlier applied to its justification as an impulse control disorder.

However, has the reclassification led to any beneficial outcomes or advantage? Setting aside the fact that relocating pathological gambling to the non-substance behavioral addiction category served to legitimize the condition and increase the potential for research funding, this reclassification has had no impact on its diagnosis, management, or outcome. With the exception of dropping the illegal act criterion and reducing the threshold from five of ten to four of nine criteria, there is no change in the diagnostic process or content of screening instruments. Further, no implications are borne for the treatment and management of the condition with the same interventions applied when classified as an impulse control disorder prior to DSM-5. Indeed, as stated by Grant and Chamberlain (2015), “… the evidence-based psychosocial treatments for gambling disorder have not aligned identically with traditional substance addiction treatment” (p. 129), although some treatments are commonly effective across both conditions: motivational interviewing, cognitive-behavioral treatment (Grant & Chamberlain, 2015).

Lesieur and Rosenthal (1991) modeled the diagnostic criteria for pathological gambling on items derived from the substance dependence category. Using this as a template, and with scant regard to conceptual, theoretical or phenomenological features, researchers are now simply substituting and/or modifying the relevant wording to define a range of non-substance related behaviors as addictions. As Billieux, Schimmenti et al. (2015) correctly note in their paper, the
field needs to take a step back and consider the direction being taken. Minimal attempts have been made to operationally define criterion items, and to distinguish behaviors that are stimulating, enjoyable and popular such that the individual prefers to pursue these accepting the opportunity costs and impact on other aspects of his/her functioning. Athletes and serious hobbyists may spend hours and money engaged in training and purchasing items at the expense of alternative options, for example, training daily with the risk of injury and no career options as a back-up, collecting expensive stamps in preference to taking holidays.

Billieux, Schimmenti et al. (2015) make an excellent contribution to the debate by questioning the validity and utility of assuming a range of daily behaviors to be pathological. The end result is a dilution of the concept of a non-substance behavioral addiction with the threat of throwing out the baby with the bathwater. What is required is more empirical research directed toward operationally defining the criteria delineating behavioral addictions and differentiating these behaviors from other disorders or situational environmental contributions.

Funding sources: No financial support was received for this commentary.

Author’s contribution: The author contributed to, and accepts responsibility for the comments and views expressed in this commentary.

Conflicts of interest & declarations: The author has obtained grants in the last three years from La Loterie Romande, ClubsNSW, Comelot, La Française des Jeux, Loto-Québec, National Lottery (Belgium), NSW Office of Liquor, Gaming, and Racing, Ontario Problem Gambling Research Centre, Gambling Research Australia, and National Association for Gambling Studies, received grant review fees from Manitoba Gambling Research Program, Ontario Problem Gambling Research Centre, and the Responsible Gambling Trust (UK), and has provided consultancies and submissions to industry operators, government agencies, and Senate Inquiries.

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