

## Extending Definitions in Addictions

Joël Billieux | Claus Vögele

Institute for Health and Behaviour, University of Luxembourg, Esch-sur-Alzette, Luxembourg

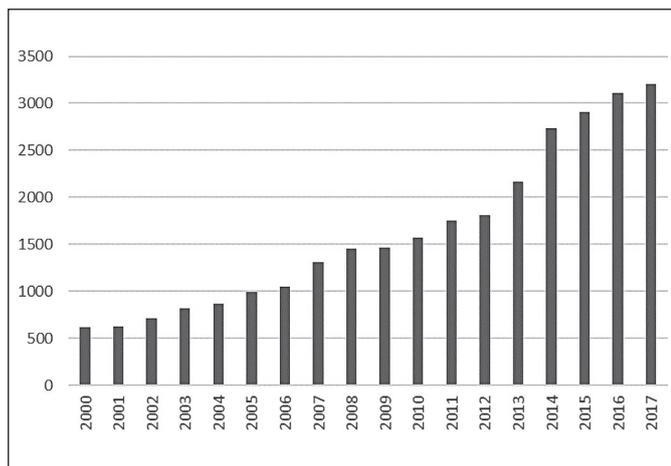
Drug abuse and substance use disorders (SUD) are a major public-health issue worldwide. In 2016, harmful use of alcohol resulted in some 3 million deaths (5.3% of all deaths) and 132.6 million disability-adjusted life years (DALYs), i.e., 5.1% of all DALYs, globally [WHO, 2018]. Tobacco use kills more than 7 million people each year [WHO, 2017]. Together, alcohol and tobacco use constitute one of the main risk factors for preventable mortality. The USA in particular, but also other countries (including European countries), are currently facing an opioid crisis – favoured by the emergence of synthetic opioids [Karila et al., 2018]. Alongside alcohol and tobacco, psychoactive substances such as heroin, ‘crack’ cocaine and methamphetamine have been shown to inflict the worst harm to consumers and others [Nutt et al., 2010]. Research is thus warranted to further understand the aetiology and the course of SUD, and to improve both prevention and treatment, according to the constantly evolving landscape of psychoactive substance use (e.g., emergence of novel psychoactive substances and new designer drugs) and changing patterns of misuse (e.g., ‘chemsex’, i.e., drugs are used to enhance – usually unsafe – sexual behaviours).

Addictive disorders are no more limited to SUD. Although behavioural addictions (i.e., non-substance-related addictive disorders) have been researched for decades (fig. 1) [Marks, 1990], a major paradigm shift occurred in 2013 when the American Psychiatric Association (APA) [APA, 2013] for the first time recognised gambling disorder as an addiction in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (the condition was previously termed ‘pathological gambling’ and considered as an impulse-control disorder). This new conceptualisation of gambling disorder was supported by substantial evidence showing consistent similarities between gambling disorder and SUD, such as comparable neurobiological and cognitive impairments and shared psychosocial and genetic risk factors [Potenza, 2006]. In addition to gambling disorder, technology-mediated addictive behaviours (e.g., uncontrolled involvement in various types of online applications including video games, cybersex or social-network sites) have been extensively studied in the last 20 years [Kuss and Billieux, 2017]. In 2015, the World Health Organization

(WHO) published a report concluding that excessive use of information and communication technologies (ICTs) has become a public health issue [WHO, 2015]. Online video games are particularly concerned, as substantial clinical and public-health evidence suggests that video game playing can become excessive and lead to psychological distress and functional impairment [Stein et al., 2018]. Crucially, gaming disorder has recently been included as an official mental condition in the International Statistical Classification of Diseases and Related Health Problems, 11th Edition (ICD-11). Thus, 5 years after gambling disorder was aligned to substance addictions in the DSM-5, (video) gaming disorder becomes the second mental condition recognised as a behavioural addiction. Although not included as such in main nosological manuals (e.g., ICD and DSM), other clinically relevant conditions are often conceptualised and treated as addictive disorders, including excessive shopping, pathological eating patterns or pornography consumption [Brand et al., 2018].

Nevertheless, following the release of DSM-5 and the legitimisation of the ‘behavioural-addiction’ construct, a growing body of research increasingly classified a wide range of common behaviours or leisure activities (e.g., dancing, working or even taking selfies) as possible behavioural addictions. Faced with this proliferation of alleged behavioural addictions, some scholars cautioned against the associated risks of disease mongering [Billieux et al., 2015] and called for a refinement in the conceptualisation and diagnosis of these conditions, to prevent healthy passions and pathological habits from being confused [Kardefelt-Winther et al., 2017]. Research is thus warranted to clarify the aetiology of behavioural addictions in order to improve their prevention and treatment, but also to establish their boundaries (i.e., clarifying what distinguishes a clinically relevant disorder from the strong – but healthy – involvement in appetitive and rewarding activities).

Given these developments, we think it timely to publish a topic issue on addictive disorders in VERHALTENSTHERAPIE, whose readers may not necessarily be familiar with the most recent evolution of the scientific literature on the conceptualisation and treatment of addictive disorders, whether these are related to the consumption of psychoactive substances or not. To this end, we invited em-



**Fig. 1.** Behavioural-addiction papers published between 2000 and 2017. The search was carried out on PubMed on October 21, 2018. All articles included mentioned either 'behavioral addiction' or 'behavioural addiction' as keywords. Although not included in the graph, 2,232 articles were available for 2018 already.

pirical and theoretical contributions on both SUD and behavioural addictions from German scholars and clinicians. Six articles are incorporated in this topic issue, 3 of which are empirical research reports focussing on SUD [Pätz et al., 2018; Schawohl and Odenwald, 2018; Schünemann et al., 2018], while the remaining 3 are conceptual papers discussing behavioural addictions [Laskowski et al., 2018; Müller et al., 2018; Wegmann and Brand, 2018].

Pätz et al. [2018] evaluated the effects of a cognitive-behavioural group therapy (CBT) for smoking cessation in a sample of alcohol-dependent patients. Although not statistically significant, a larger proportion of patients in the CBT group achieved abstinence at discharge and follow-up compared to patients without CBT. The paper by Schawohl and Odenwald [2018] reports findings on predictors of therapy dropout in a sample of patients undergoing treatment for mental disorders in a university outpatient clinic. Among a range of sociodemographic and clinical predictors (e.g., symptom severity), risky alcohol consumption at the beginning of therapy explained a significant proportion of dropouts. Schünemann et al. [2018] examined the effectiveness of an addiction-specific inpatient CBT intervention in routine clinical practice with a

particular focus on relationship satisfaction and global mental distress. The results, however, suggest no additional short-term effect of additional CBT over and beyond routine care on self-reported relationship satisfaction and mental distress at the end of treatment.

Among the 3 conceptual papers on behavioural addictions, Müller and et al. [2018] present a state-of-the-art review of the assessment and clinical psychological treatment of Internet-related disorders (not limited to online video gaming), with a particular focus on CBT and motivational techniques. Wegmann and Brand [2018] discuss in their paper how constructs such as cue reactivity and craving, well established in SUD, also apply to Internet-related disorders and should thus be targeted in prevention and treatment. Based on their up-to-date review of clinical research on pathological shopping, Laskowski et al. [2018] propose this condition to be considered a behavioural addiction and to be classified as a disorder due to addictive behaviours (as is the case in ICD-11 for gambling and gaming disorders).

Taken together, the papers included in this topic issue illustrate the clinical importance of the questions investigated, but also the differences in the evolution of concepts of SUD and behavioural addictions. While the papers addressing SUD report original data on clinically relevant questions (including efficacy and effectiveness of treatment approaches), the articles on behavioural addictions mainly discuss conceptual issues. Although the similarities between SUD and addictive behaviours prevail, there is still some way to go for the field of addictive behaviours to reach the same maturity in terms of research and, therefore, empirical evidence concerning prevention and intervention. We are confident that the current topic issue constitutes a useful and timely conceptual and practical update for researchers and clinicians faced with patients displaying addictive behaviours. Moreover, we hope that the papers published here will give impetus to more research on SUD and behavioural addictions.

## Disclosure Statement

The authors did not receive any financial or other support in this work and declare that they have no conflict of interest.

## References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*, ed 5. Arlington, VA: American Psychiatric Association.
- Billieux J, Schimmenti A, Khazaal Y: Are we overpathologizing everyday life? A tenable blueprint for behavioral addiction research. *J Behav Addict* 2015;4:119–123.
- Brand M, Billieux J, Demetrovics Z, et al: What disorders should be considered as «other specified disorders due to addictive behaviours»? *J Behav Addict* 2018;7(Suppl 1):46.
- Kardefelt-Winther D, Heeren A, Schimmenti A, et al: How can we conceptualize behavioral addiction without pathologizing common behaviors? *Addiction* 2017; 112:1709–1715.
- Karila L, Marillier M, Chaumette B, et al: New synthetic opioids: part of a new addiction landscape. *Neurosci Biobehav Rev* 2018;pii: S0149-7634(18)30114-3.
- Kuss DJ, Billieux J: Technological addictions: conceptualisation, measurement, etiology and treatment. *Addict Behav* 2017;64:231–233.
- Laskowski NM, Trotzke P, Müller A: Brauchen versus kaufen: Wenn Warenkonsum zur Sucht wird. *Verhaltenstherapie* 2018;28:DOI: 10.1159/000493888.
- Marks I: Behavioural (non-chemical) addictions. *Brit J Addict* 1990;85:1389–1394.
- Müller KW, Scherer L, Beutel ME, Wölfling K: Verhaltenstherapeutische Ansätze bei internetbezogenen Störungen: Diagnostik, Motivation und Verhaltensmodifikation. *Verhaltenstherapie* 2018;28:DOI: 10.1159/000494460.
- Nutt DJ, King LA, Phillips LD; Independent Scientific Committee on Drugs: Drug harms in the UK: a multi-criteria decision analysis. *Lancet* 2010;376:1558–1565.

- Pätz T, Frischknecht U, Dinter C, et al: Tabakentwöhnung mit kognitiv-behavioraler Gruppentherapie während einer 3-wöchigen qualifizierten Alkoholentzugsbehandlung: Effekte auf den Tabakkonsum. *Verhaltenstherapie* 2018;28:DOI: 10.1159/000492087.
- Potenza MN: Should addictive disorders include non-substance-related conditions? *Addiction* 2006;101:142–151.
- Schawohl A, Odenwald M: Häufigkeit und Risikofaktoren des Therapieabbruchs in einer verhaltenstherapeutischen Hochschulambulanz: Der Einfluss von riskantem Alkoholkonsum zu Therapiebeginn. *Verhaltenstherapie* 2018;28:DOI: 10.1159/000492086.
- Schünemann O, Lindenmeyer J, Heinrichs N: Effekte einer suchtspezifischen Partnerschaftsintervention in einer stationären Entwöhnungsbehandlung. *Verhaltenstherapie* 2018;28:DOI: 10.1159/000487770.
- Stein DJ, Billieux J, Bowden-Jones H, et al: Balancing validity, utility and public health considerations in disorders due to addictive behaviours. *World Psychiatry* 2018;17:363–364.
- Wegmann E, Brand M: Reizreaktivität und Craving bei Verhaltenssüchten mit Fokus auf Internetnutzungsstörungen. *Verhaltenstherapie* 2018;28:DOI: 10.1159/000493918.
- WHO (World Health Organization): Report on Public Health Implications of Excessive Use of the Internet, Computers, Smartphones and Similar Electronic Devices. Geneva, World Health Organization, 2015.
- WHO (World Health Organization): Report on the Global Tobacco Epidemic, 2017: Monitoring Tobacco Use and Prevention Policies. Geneva, World Health Organization, 2017.
- WHO (World Health Organization): Global Status Report on Alcohol and Health 2018. Geneva, World Health Organization, 2018.