COMMENTARY

# Under the umbrella

# Commentary on: Chaos and confusion in DSM-5 diagnosis of Internet Gaming Disorder: Issues, concerns, and recommendations for clarity in the field (Kuss et al.)

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The inclusion of Internet Gaming Disorder as a preliminary diagnosis subsumed in Section III of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) has provoked mixed reactions. On the one hand, it has been appreciated as an important sign stressing the negative health-related impact of that disorder. Likewise, the definition of diagnostic criteria helps scientists and clinicians to refer to mandatory indicators associated with a health problem. On the other hand, it has been objected that this new diagnosis bears the danger of pathologizing normal behaviors that are a feature of healthy recreational activity for many people. However, the existence of diagnostic criteria is meant to avoid this danger. This emphasizes the necessity of being able to refer to as accurate defined criteria as possible. In its current version, the DSM criteria display not only strengths but also ambiguities. Both types will be discussed and necessary ideas to resolve those ambiguities will be presented for further research.

Keywords: classification, diagnostics, Internet Gaming Disorder

#### INTERNET GAMING DISORDER AND OTHER INTERNET-RELATED DISORDERS: A MATTER OF CONFUSION?

Using computer games (online and offline) for recreational purposes has attracted scientific interest for almost decades. While for a long period research was mainly focusing on relationships between the use of violent video games and aggression, the last decade was primarily shaped by studies on excessive computer gaming and its addictive use. To no surprise, the latter research has also provoked controversies among different professionals, either doubting that a mere behavior like gaming can become addictive or objecting that a mere recreational activity is being labeled as a disorder and so pathologizing a lifestyle that is related to a new type of media culture (Van Rooij & Prause, 2014; Wood, 2008).

Years have passed and scientific research has progressed a lot – in terms of quantity but especially of quality. We have now a large variety of methodological sound studies from different settings (epidemiological and clinical data) assessing different methods (qualitative approaches, questionnaire-based surveys, and neuroimaging techniques) emphasizing that Internet Gaming Disorder does not only exist but does also cause severe negative consequences for those losing control of the gaming behavior and for their social environment (e.g., APA, 2013; Ko, Yen, Yen, Chen, & Chen, 2012; Kuss & Griffiths, 2012).

Taking the perspective of clinical psychology and psychotherapy, the inclusion of Internet Gaming Disorder as a preliminary clinical condition in Section III of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2013) has to be considered not only as a justified but especially as a necessary decision. On the same time, there is no doubt that we are currently witnessing a somewhat unfinished story. Pragmatically spoken, clinicians and researchers have now the opportunity to rely on – more or less – defined criteria for Internet Gaming Disorder. This should solve some of the methodological problems from the past, making it easier to compare findings from different research groups. In contrast, taking a critical view on the future, a further specification of those criteria – and the phenomenon they are relying on – seems to be inevitable.

The position depicted by Kuss, Griffiths, and Pontes (2016) elaborates appropriately on the major unresolved issues, starting with the debate on specific activities under the umbrella of the term "Internet Gaming Disorder". Indeed, it appears hard to comprehend the reason behind deciding for the term "Internet" and on the same time noting that also offline games may be part of that category. Talking about the umbrella, Kuss et al. (2016) also refer to a similar, but further leading issue: It is true that addiction does not occur regarding the Internet itself. However, there is a

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evidence that addictive online behaviors can manifest beyond the uncontrolled use of (online) computer games with some online activities bearing a higher addictive potential than others. While the APA (2013) has stated that uncontrolled online gambling has to be classified among Gambling Disorders, other online activities that have been reported to be associated with symptoms of addictive use (like the use of social networking sites, online pornography, or the under-researched phenomenon of generalized Internet addiction; cf. Király et al., 2014; Müller, Dreier, Duven, et al., 2016; Pawlikowski, Nader, Burger, Stieger, & Brand, 2014) are disabled from being classified according to DSM standards. Given the possibility that other forms of addictive Internet-related activities exist, it remains unclear if it is appropriate to simply adapt the DSM criteria for Internet Gaming Disorder. Alternatively, they might be related to these criteria as well but additionally requiring specific criteria. Elucidating this question is a clear challenge for future research. We need to know more on the prevalence of these additional Internet-related disorders, need to examine if they are related to negative psychosocial consequences and distress, need to inquire if they are stable or temporary conditions, and - most important - need to clarify phenomenological similarities and differences compared to Internet Gaming Disorder in order to define appropriate diagnostic criteria.

## MIRROR, MIRROR ON THE WALL – STRENGTHS AND AMBIGUITIES OF THE DSM CRITERIA

An even more crucial issue is addressed by Kuss et al. (2016). The authors are providing a detailed discussion on the single diagnostic criteria for Internet Gaming Disorder defined in the DSM-5. Generally, looking at these criteria reveals that they are basically derived from those known from Gambling Disorder (APA, 2013; Griffiths et al., 2016). This makes sense because of empirical findings suggesting a close phenomenological relationship between Internet Gaming Disorder and Gambling Disorder and the notion that both disorders can be perceived as non-substance-related addictions (e.g., Frascella, Potenza, Brown, & Childress, 2010; Grant, Potenza, Weinstein, & Gorelick, 2010). Nevertheless, it remains a vague impression that a further amplification of these criteria would have been an added advantage. For example, Ko et al. (2014) have offered one of the first systematic evaluation studies on the DSM criteria. By additionally considering the criterion craving, they found amendments in the diagnostic accuracy. In order to find out if and how diagnostic accuracy can be enhanced, future researchers should demonstrate enough scientific boldness to test their own diagnostic hypotheses by defining additional, theory-driven criteria and evaluate their impact on classifying Internet Gaming Disorder.

Irrespective of the aforementioned, the paper by Kuss et al. (2016) points to some serious difficulties and ambiguities of the nine diagnostic criteria defined. Particularly, it has to be appreciated that the authors not only refer to these ambiguities but also present first ideas on how to resolve them. For instance, preoccupation – of course – is a central

aspect of addictive behaviors, regardless if it is substancerelated or not. However, regarding online gaming - especially among adolescents – it is necessary to thoroughly distinguish between a non-problematic engagement in gaming contents (that can be referred to as a pleasant anticipation of the next gaming event) and its harmful counterpart. The latter one should be perceived as being made of compulsion that is accompanied by intrusive thoughts and the resulting irresistible urge to keep using the game despite more pleasant alternatives available. Undoubtedly, it is not always easy to disentangle these concepts and that is why we need to have more specific research on that topic. Although we are talking about a clinical phenomenon, it might be beneficial to also refer to findings from the field of media psychology in order to define components of positive engagement (e.g., Bartsch & Oliver, 2016).

A lot of controversies have dealt with the withdrawal and tolerance criteria. Both criteria are core features of substanceuse disorders and are mainly related - but not necessarily restricted - to the physical effects that a psychoactive substance enacts on the neurophysiological system. Nevertheless, clinical and neuroscientific evidence supports that both criteria can be presented in non-substance-related addictions as well. Here they have to be understood as psychological effects of the addictive behavior, rather than effects of intoxication (e.g., Frascella et al., 2010). Again, a clear and detailed concept of withdrawal and tolerance related to Internet Gaming Disorder is largely missing (cf. Kaptsis, King, Delfabbro, & Gradisar, 2016) although desperately necessary for diagnostic purposes. To repeat this, we need more specific research on that topic! Qualitative research designs could be very useful to shed light into that question and some initial findings are already available (cf. Beranuy, Carbonell, & Griffiths, 2013; Tzavela et al., 2015).

The discussion on the criterion of loss of interests demonstrates again the necessity to have a broad consensus on the concrete contents of the single criteria defined (although we are well aware that this kind of consensus is sometimes hard to reach; cf. Griffiths et al., 2016; Petry et al., 2014). Without being able to refer to clear diagnostic guidelines, we are facing a certain danger of getting important things wrong. Kuss et al. (2016) correctly emphasize that a shift of interests, especially in adolescence, is a normative phenomenon since the young individual is developing in different respects (including manifestation of interests and preferences). Thus, the criterion should not be misinterpreted in being fulfilled when a shift of interests is given. Rather, a rigorous loss of formerly important recreational activities accompanied by a retreat from the possibilities that the environment is offering to the individual are indicative for a problem in progress. Perhaps even more important, clinical experience shows that the criterion can also be broadened. Excessive and addictive computer gaming in adolescence is often accompanied by an impairment of developing new interests (e.g., Müller, Beutel, & Wölfling, 2014). It follows that a "loss" of interests is not necessarily the case but rather a missed chance of discovering such interests and - perhaps - also shifting them after some time.

The detailed depiction of strengths and deficits of the proposed diagnostic criteria by Kuss et al. (2016)

emphasizes a further challenge: it seems necessary to think of adapting the criteria for diagnostic purposes depending on the age of the patient. For example, the results of Ko et al. (2014) showed that the deception criterion was of weak diagnostic validity among adults. Accordingly, research has demonstrated that Internet Gaming Disorder is associated with social isolation; so, for a substantial number of patients deceiving on the behavior is not necessary. In contrast, constant attempts to conceal the behavior or lying to trusted persons (e.g., parents) can be of diagnostic value in adolescents.

### THE STORY MUST GO ON – PERSPECTIVES FOR FUTURE RESEARCH

At the end of their contribution, Kuss et al. (2016) provided some very helpful proposals for future research activities that are essential for advancing our understanding of Internet Gaming Disorder. Indeed, looking at the current body of research reveals certain imbalances. For example, we have plenty of epidemiologic surveys but on the same hand, sound prospective longitudinal studies are largely missing. Consequently, we have a good impression on prevalence rates of Internet Gaming Disorder for different countries but no good idea on its stability – and associated factors predictive for its stability and its remission.

Furthermore, we have a clear lack in clinical studies – regarding different aspects. We need to know more about motivations to change (e.g., comparative studies on treatment seeking populations and data from community-based samples), presence and individual perception of symptoms related to Internet Gaming Disorder, standardized qualitative examinations of the diagnostic criteria, and of course clinical trials to estimate effective types of intervention strategies as well as factors related to positive intervention response (e.g., Jäger et al., 2012). At present, there is only one meta-analysis provided by Winkler, Dörsing, Rief, Shen, and Glombiewski (2013) on the efficacy of treatment in Internet Addiction, so too many question marks are remaining.

Finally, we have a lot of findings on different correlates of Internet Gaming Disorder, ranging from psychological (e.g., personality traits; cf. Floros & Siomos, 2014; Kuss, Griffiths, & Binder, 2013; Müller, Beutel, Egloff, & Wölfling, 2014) and social (e.g., parenting styles; Choo, Sim, Liau, Gentile, & Khoo, 2015; Kalaitzaki & Birtchnell, 2014) to neurobiological factors (e.g., neurochemical transmissions and imbalances; Ko et al., 2011; Park et al., 2010). However, on the same time, efforts to integrate these findings into a holistic theoretical framework are lacking. This becomes particularly obvious with respect to the development of etiopathological models. No doubt, some initial models explaining the development and maintenance of Internet Addiction and Internet Gaming Disorder in particular have been made (e.g., Brand, Young, Laier, Wölfling, & Potenza, 2016; Dong & Potenza, 2014; Kuss, Shorter, van Rooij, Griffiths, & Schoenmakers, 2013; Müller, Dreier, & Wölfling, 2016), but what we need is a systematic evaluation of the underlying assumptions if we want to have a chance of enhancing our understanding of this new phenomenon and striving for a real consensus on its nature.

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