Suggesting psychometric tools in the study of behavioural addiction: A personal overview (Part 2)

Mark Griffiths

PRIOR TO the introduction of criteria for internet gaming disorder in the DSM-5 (APA, 2013), a systematic review by King et al. (2013) reported that 18 different screening instruments had been developed to assess problematic gaming, and that these had been used in 63 quantitative studies comprising 58,415 participants. This comprehensive review identified both strengths and weaknesses of these instruments. The main strengths of the instrumentation included: (i) the brevity and ease of scoring, (ii) excellent psychometric properties such as convergent validity and internal consistency, and (iii) robust data that will aid the development of standardised norms for adolescent populations. However, the main weaknesses included: (i) core addiction indicators being inconsistent across studies, (ii) a general lack of any temporal dimension, (iii) inconsistent cut-off scores relating to clinical status, (iv) poor and/or inadequate inter-rater reliability and predictive validity, and (v) inconsistent and/or dimensionality. There are also issues surrounding the settings in which diagnostic screens are used, as those used in clinical practice settings may require a different emphasis from those used in epidemiological, experimental and neurobiological research settings (King et al., 2013; Koronczai et al., 2011). Since 2013, a number of new instruments have been developed based on the DSM-5 criteria (including a couple that I co-developed and mentioned earlier – *Internet Gaming Disorder 20 Test* and the *Internet Gaming Disorder Scale 9 – Short-Form*). The same situation applies to the assessment of problematic internet use. Kuss et al. (2014) identified 21 different instruments that had been used to assess problematic internet use, with new ones being developed since the publication of the DSM-5, including two that I helped co-develop (*Internet Disorder Scale* and the *Internet Disorder Scale – Short Form*).

Many other instruments have used some of our validated scales (particularly those based on the components model of addiction [Griffiths, 2005]) as the basis for others tools to assess other behavioural addictions including the *Bergen Facebook Addiction Scale* (Andreassen et al., 2011; also validated in Portuguese [Pontes et al., 2016]), *Bergen Social Media Addiction Scale* (Andreassen et al., 2011; also validated in Italian [Monacis et al., 2017]), *Bergen Shopping Addiction Scale* (Andreassen et al., 2015; also validated in Polish [(Atroszko et al., 2017]), *Bergen Work Addiction Scale* (Andreassen et al., 2011), *YouTube Addiction Scale* (Balakrishnan & Griffiths, 2017), Problematic Pornography Consumption Scale (Bőthe et al., 2017), *Smartphone Applications-Based Addiction Scale* (Csibi et al., 2017), and the *Dance Addiction Inventory* (Maraz et al., 2015).

A number of these scales (such as those that relate to leisure activities such as exercise and dancing) have come under criticism for over-pathologising everyday life (Kardefelt-Winther et al., 2017). Kardefelt-Winther et al. provide four exclusion criteria and argue that behaviours should not be classed as a behavioural addiction if:

1. *'The behaviour is better explained by an underlying disorder (e.g. a depressive disorder or impulse-control disorder).*

2. *The functional impairment results from an activity that, although potentially harmful, is the consequence of a wilful choice (e.g. high-level sports).*
3. *The behaviour can be characterised as a period of prolonged intensive involvement that detracts time and focus from other aspects of life, but does not lead to significant functional impairment or distress for the individual.*
4. *The behaviour is the result of a coping strategy'* (p.1710)

I have argued in response to this that if these criteria were applied to substance abuse, very few substance users would be classed as addicted (Griffiths, 2017). For instance, it is proposed that any behaviour in which functional impairment results from an activity that is a consequence of wilful choice should not be considered an addiction. I cannot think of a single addictive behaviour that when the person first started engaging in the behaviour (e.g. drinking alcohol, illicit drug-taking, gambling) was not engaged in wilfully. The key issue (as highlighted by Kardefelt-Winther et al. in their operational definition of behavioural addiction) is sustained harm, distress, and functional impairment in the behaviour (not excluding some behaviours *a priori*). Also, not being classed as an addiction if the behaviour is secondary to another comorbid behaviour (e.g. a depressive disorder) or is used as a coping strategy again means that some other substance addictions (e.g. alcoholism) would not be classed as genuine addictive behaviours using such exclusion criteria because many substance-based addictions are used as coping strategies and/or are symptomatic of other underlying pathologies (Griffiths, 2017).

Along with my colleagues I will continue to develop new psychometrically validated instruments, and already have some in the pipeline including one for sex addiction and

one for 'tanorexia' (tanning addiction). Clearly, no instrument developed to screen for addictive behaviours in epidemiological studies can be used for diagnosing such individuals because this can only be carried out by a professionally qualified practitioner (e.g. clinical psychologist, psychiatrist). However, as indicative tools they are extremely useful for gauging at-risk behaviours including those that are potentially addictive.

(N.B. All of the instruments that I have cited in this article are in the public domain and free to use, and can be obtained by emailing me: **mark.griffiths@ntu.ac.uk**).

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References

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders (5th edition)*. Washington DC: Author.

Andreassen, C.S., Billieux, J., Griffiths, M.D. et al. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors, 30*, 252–262.

Andreassen, C.S., Griffiths, M.D., Hetland, J. & Pallesen, S. (2012). Development of a Work Addiction Scale. *Scandinavian Journal of Psychology, 53*, 265–272.

Andreassen, C.S., Griffiths, M.D., Pallesen, S., Bilder, R.M., Torsheim, T. Aboujaoude, E.N. (2015). The Bergen Shopping Addiction Scale: Reliability and validity of a brief screening test. *Frontiers in Psychology, 6,* 1374.

Andraessen, C.S., Tosheim, T., Brunberg, G.S. & Pallesen, S. (2011) Development of a Facebook Addiction Scale. *Psychological Reports, 110,* 501–517.

Atroszko, P., Andreassen, C.S., Griffiths, M.D. & Pallesen, S. (2017). Work addiction in Poland: Adaptation of the Bergen Work Addiction Scale and relationship with psychopathology. *Health Psychology Report,* in press.

Balakrishnan, J. & Griffiths, M.D. (2017). Social media addiction: What is the role of content in YouTube? *Journal of Behavioral Addictions, 6*, 364–377.

Bőthe, B., Tóth-Király, I., Zsila, Á., Demetrovics, Z., Griffiths, M.D. & Orosz, G. (2017). The development of the Problematic Pornography Consumption Scale (PPCS). *Journal of Sex Research,* in press.

Csibi, S., Griffiths, M.D., Cook, B., Demetrovics, Z. & Szabo, A. (2017). The psychometric properties of the Smartphone Applications-Based Addiction Scale (SABAS). *International Journal of Mental Health and Addiction,* in press.

Griffiths, M.D. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use, 10*, 191–197.

Griffiths, M.D. (2017). Behavioural addiction and substance addiction should be defined by their similarities not their dissimilarities. *Addiction, 112*, 1718–1720.

Kardefelt-Winther, D., Heeren, A., Schimmenti, A. et al. (2017). How can we conceptualize behavioural addiction without pathologizing common behaviours?. *Addiction, 112*, 1709–1715.

King, D.L., Haagsma, M.C., Delfabbro, P.H., Gradisar, M.S. & Griffiths, M.D. (2013). Toward a consensus definition of pathological video-gaming: A systematic review of psychometric assessment tools. *Clinical Psychology Review, 33*, 331–342.

Koronczai, B., Urban, R., Kokonyei, G. et al. (2011). Confirmation of the three-factor model of problematic internet use on off-line adolescent and adult samples. *Cyberpsychology, Behavior and Social Networking 14*, 657–664.

Kuss, D.J., Griffiths, M.D., Karila, L. & Billieux, J. (2014). Internet addiction: A systematic review of epidemiological research for the last decade. *Current Pharmaceutical Design, 20*, 4026–4052.

Maraz, A., Urbán, R., Griffiths, M. D. & Demetrovics Z. (2015). An empirical investigation of dance addiction. *PLoS ONE, 10*(5), e0125988.

Monacis, L., de Palo, V., Griffiths, M.D. & Sinatra, M. (2017). Social networking addiction, attachment style, and validation of the Italian version of the Bergen Social Media Addiction Scale. *Journal of Behavioral Addictions*, 6, 178–186.

Pontes, H.M., Andreassen, C.S. & Griffiths, M.D. (2016). Portuguese validation of the Bergen Facebook Addiction Scale: An empirical study. *International Journal of Mental Health and Addiction, 14*, 1062–1073.

What's on the website?

The International Test Commission Guidelines

Most of us know that the Psychological Testing Centre has a number of guidelines for test developers and users on our website: **https://ptc.bps.org.uk/**. Some of these are produced by the International Test Commission, and are also available on its own website www.intestcom.org as free downloads.

The ITC guidelines deal with slightly different aspects of testing than the BPS ones. For example, those currently available include guidelines on computer-based testing and guidelines for translating and adapting tests, as well as others on test security, test disposal and quality control. Another guideline, currently in its final stages of development, deals with the challenges of testing in multilingual environments and should be available on the website soon.

Several of these guidelines have also been translated into other languages. Anyone is free to use or quote from the guidelines, as long as credit is given to them as the source. So if you're developing tests, or facing linguistic challenges in your use of them, do take a look. It won't cost you anything and could save you a lot of time!