

## Sex as an addiction?

In a Correspondence to *The Lancet Psychiatry*, Marc Potenza and colleagues<sup>1</sup> advocated classifying “excessive sexual behaviour” as an addictive disorder in ICD-11. Sex has components of liking and wanting that share neural systems with many other motivated behaviours.<sup>2</sup> However, experimental studies do not support key elements of addiction such as escalation of use, difficulty regulating urges, negative effects, reward deficiency syndrome, withdrawal syndrome with cessation, tolerance, or enhanced late positive potentials. A key neurobiological feature of addiction is the increased responsiveness of glutamate neurons that synapse on the nucleus accumbens. These changes might affect long-term sensitisation of the mesocorticolimbic dopamine pathway, as manifested by a range of symptoms including cue-induced craving and compulsive drug use.<sup>3</sup> To date, research on the effects of sex on glutamate function and its modulation of dopamine pathways is scarce.

Sex is a primary reward, with unique peripheral representation. Engagement in sex is positively associated with health and life satisfaction.<sup>4</sup> Sex does not allow for supraphysiological stimulation. Research in this area has yet to investigate actual partnered sexual behaviours. Experimental work has been limited to sexual cues, or secondary rewards, using images.

More research is needed, but data concerning frequent or excessive sex do not support its inclusion as an addiction. Also, data are not sufficient to differentiate between compulsive and impulsive models. Many other approaches exist, including well-supported non-pathological models.<sup>5</sup> Potenza and colleagues<sup>6</sup> also stated that addiction criteria were not met for sexual behaviours: we agree with this earlier conclusion [A: edit ok? That you agree with ref 6 conclusion rather than the one made in the Correspondence?].

We declare no competing interests.

\*Nicole Prause, Erick Janssen,  
Janniko Georgiadis, Peter Finn,  
James Pfaus  
nicole.prause@gmail.com

Liberos Research, Los Angeles, CA 90024, USA (NP)

[A: corresponding author details correct?];

University of Leuven (EJ); University of Groningen (JG); Indiana University (PF); and Concordia

University (JP) [A: please provide Department, City/State/Country for each author affiliation]

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